

Strength & Conditioning Manual





Bearcat Football



Dear Bearcat,

I would like to welcome you again to the Bearcat Family. This manual will introduce to you the Bearcat Strength and Conditioning program. It will help you to understand all the factors that go into your physical and mental preparation to become a successful member of the Bearcat football team. We are not just about lifting weights. You must be able to blend all aspects of our program to reach your greatest potential as a Bearcat football player.

The time is now for you to establish a great work ethic for yourself and begin contributing to the Bearcat football team. Please read through the entire manual and familiarize yourself with its contents. Your summer conditioning is scheduled to start on May 16th and you will find the conditioning calendar at the back of the manual. It is very important to follow this calendar because it will allow you to come to camp in top physical condition. We pride ourselves in knowing that our Strength and Conditioning program is top in the nation. No one will outwork a Bearcat Football Player!

Remember – Champions are made when no one is watching!

Good luck with the program and if you have any questions, please do not hesitate to call us at (513) 556-2566.

Sincerely,

Tim Swanger

Head Strength Coach

Scott Greenawalt Assistant Strength Coach

Curtis Bostic Assistant Strength Coach Laura Wilder

Assistant Strength Coach

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ACKNOWLEDGEMENTS

WE WOULD LIKE TO THANK THE FOLLOWING INDIVIDUALS FOR THEIR HELPFUL INSIGHTS IN THE DEVELOPMENT OF THE BEARCAT FOOTBALL STRENGTH AND CONDITIONING MANUAL.

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PURPOSE

The purpose of this manual is to provide you, the *BEARCAT* athlete, with a general overview of our strength and conditioning program. The methods we endorse are based on the latest research, physiological fact, and years of experience. Your college experience is a learning environment and the weight room is no different. The lessons that you will learn in the weight room will be applicable to your life beyond your career at the University of Cincinnati.

THE BOTTOM LINE of the **CINCINNATI** strength program is to create a bigger, stronger, better-conditioned athlete who is less susceptible to injury.



GO BEARCATS!

UNIVERSITY OF CINCINNATI BEARCAT FOOTBALL



MISSION STATEMENT

Understanding The Family (team) can only progress with the presence of **LOVE** and **RESPECT**, we commit ourselves to reaching our full potential. We know that every action must be with the **TEAM** in mind, and unwavering loyalty to the **TEAM** must be built in, especially during the tough times. Fun will be there for all, and there will be an absence of special privileges for any individual. WE KNOW that we "will get as our works deserve."

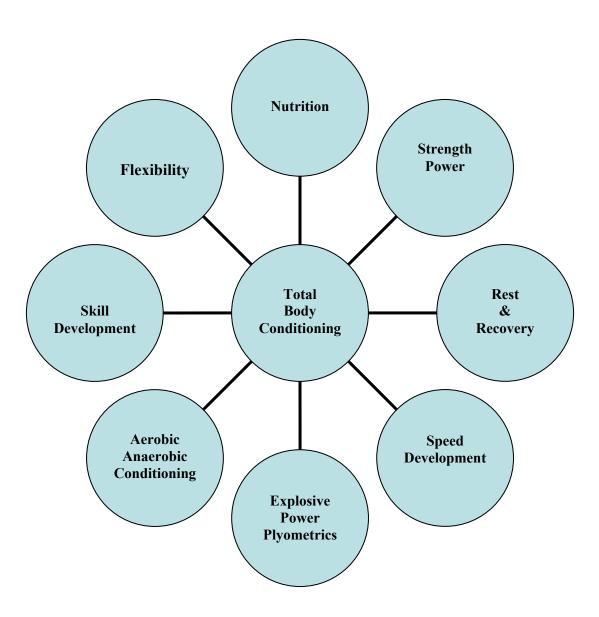
- I. We are committed to growing mentally, physically and spiritually; and we recognize that we are students first, and athletes second. We will personify **CLASS** and **HUMILITY** on-and-off-the field.
- II. We seek to get better every day and develop consistency through the relentless execution of fundamentals. We will always **compete** with the best to become the best. We **will** play with toughness, effort and knowledge of what to do and deserve to be **CONFERENCE CHAMPIONS**. We realize this can only be accomplished by tremendous FOCUS, one step/play at a time.
- III. We will respect the proud University of Cincinnati tradition of the past, and will provide further greatness and tradition for the future. We will do so, at all times, knowing that it is our responsibility to serve as a positive role-model for youth of Cincinnati and all the young and old alike that we are able to touch in this state and nation. We <u>will</u> be the **CLASS OF COLLEGE FOOTBALL**.
- IV. We accept the responsibility placed in our hands to represent the proud tradition of **CINCINNATI FOOTBALL!**





THE BOTTOM LINE....TOTAL BODY CONDITIONING

Total Body Conditioning!! This is the best way to describe our program to you. As you read this manual you will be able to understand all the factors that go into your physical and mental preparation to become a successful member of the Bearcat football team. Our program is not just about lifting weights you must be able to blend all aspects our program for you to reach your greatest potential as a *Bearcat Football Player*.



Remember, Champions are made when no one is watching





TOUGHNESS

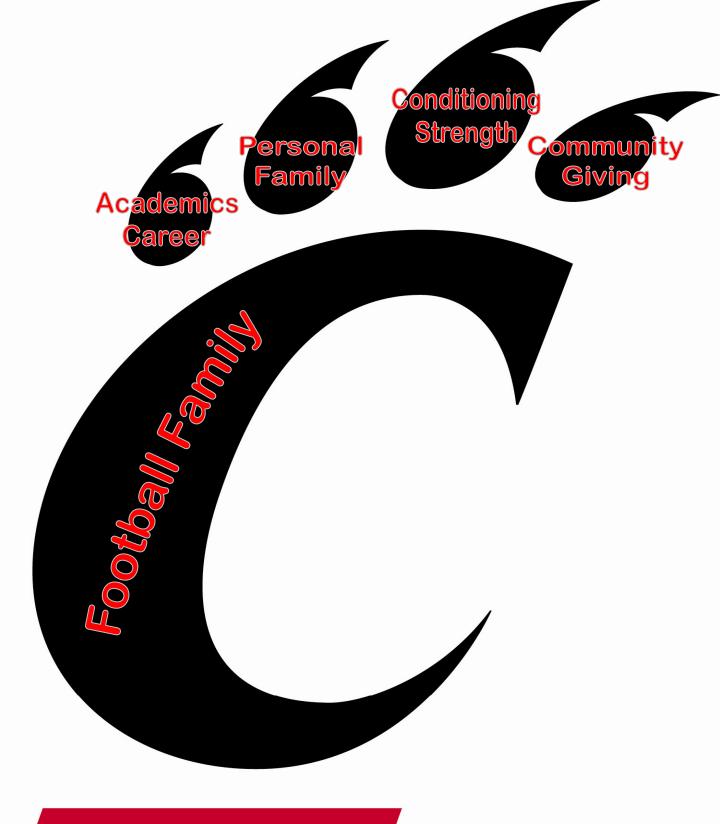
Training hard is a privilege. At some point in your life you will not be able to push your body like you can now. Some people have never been able to push their bodies. Enjoy this opportunity while you can. Having the ability to lift, condition, and play hard is a gift that can easily be taken for granted.

The nature of the human mind demands that you embrace discipline in order to be successful. The most successful athletes in the world are the ones who are the most disciplined. Without discipline absolutely nothing of any value can be accomplished. The athletes that are disciplined are the ones that can be relied on. These are the same athletes who are committed to their lifting, conditioning, and film watching. The manners in which you prepare yourself physically and mentally are indications of your discipline. In order for you to reach your maximum potential you must have a strong sense of self-discipline.

Concentration is the collection and application of facts or data. A high level of mental focus may not come naturally but can be improved with practice. Your ability to consolidate your mental effort to one task can be one of the determining factors of how successful you are. Individuals who pay attention to detail will enable themselves to achieve maximum results in the shortest amounts of time. Your ability to maximize your potential throughout your athletic career will correlate directly to your ability to focus your mind on the task at hand.

All successful teams have leaders that demonstrate how to behave. These individuals have a strong sense of team values and put the team before any self-interests. These are the athletes that work hard, take responsibility for their actions, and serve as extension of the coaching staffs. A leader is a person who looks in the mirror when things go wrong. They do not point the finger at their teammates. Effective leaders lead by example. They do not need to run their mouth to be heard. Their actions on and off the court speak volumes. A leader is an individual who is confident in his or her abilities and provides nothing but their best.

Many athletes can get excited for a short period of time. Anyone can provide a maximum effort sporadically. However, the true measure of character is the ability of a person to sustain a maximum effort over the long run. This definitely is not easy. If it were easy, everyone would do it. Never allow yourself the luxury of having a bad day. Find ways to create intensity for you and your teammates. Always be "on". Be the bright spot. Never allow self-pity and doubt to creep in. Do not allow yourself to quit. Never give into fatigue. You must always play to win. You must always provide an all out effort in everything that you do. Intensity, intensity, intensity!



Moral/Spiritual





Summer Football Conditioning Calendar

For The Weeks of May 30 -July 2nd

Monday	7	Tuesday	Wednesday	Thursday	Friday	Saturday
30 OFF		31 FULL BODY WKT #1 Running 8 Intervals Follow Testing Chart for times Skill Running Weeks I & 2	1 UPPER BODY WKT #2	2 Running 60,80,100 YD SPRINTS X 4 Follow Chart for times Skill Running Weeks I & 2	3 FULL BODY WKT # 3 Option: Running Friday or Saturday	4 Running 9 Intervals Follow Testing Chart for times 3/Station Agility Pick 3 for 3 min. Each
6 FULL BC WKT # 3/Station A Pick 3 for 3 Each	#1 Agility 3 min.	7 Running 9 Intervals Follow Testing Chart for times Skill Running Weeks I & 2	8 UPPER BODY WKT #2	9 Running 60,80,100 YD SPRINTS X 5 Follow Chart for times Skill Running Weeks I & 2	10 FULL BODY WKT # 3 Option: Running Friday or Saturday	11 Running 10 Intervals Follow Testing Chart for times 3/Station Agility Pick 3 for 3 min. Each
FULL BC WKT # 3/Station A Pick 3 for 3 Each	#1 Agility 3 min.	14 Running 11 Intervals Follow Testing Chart for times Skill Running Weeks 3 & 4	15 UPPER BODY WKT #2	16 Running 60,80,100 YD SPRINTS X 6 Follow Chart for times Skill Running Weeks 3 & 4	17 FULL BODY WKT # 3 Option: Running Friday or Saturday	Running 12 Intervals Follow Testing Chart for times 3/Station Agility Pick 3 for 3 min. Each
20 FULL BC WKT # 3/Station A Pick 3 for 3 Each	#1 Agility 3 min.	21 Running 12 Intervals Follow Testing Chart for times Skill Running Weeks 3 & 4	22 UPPER BODY WKT #2	23 Running 40,60,80 YD SPRINTS X 6 Follow Chart for times Skill Running Weeks 3 & 4	24 FULL BODY WKT # 3 Option: Running Friday or Saturday	Running 13 Intervals Follow Testing Chart for times 3/Station Agility Pick 3 for 3 min. Each
27 FULL BC WKT # 3/Station A Pick 3 for 3 Each	#1 Agility 3 min.	28 Running 14 Intervals Follow Testing Chart for times Skill Running Weeks 5 & 6	29 UPPER BODY WKT #2	30 Running 40,60,80 YD SPRINTS X 6 Follow Chart for times Skill Running Weeks 5 & 6	1 FULL BODY WKT # 3 Option: Running Friday or Saturday	Running 15 Intervals Follow Testing Chart for times 3/Station Agility Pick 3 for 3 min. Each





Summer Football Conditioning Calendar

For The Weeks of July 4th - August 6th

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
4 OFF	5 FULL BODY WKT #1 Running 15 Intervals Follow Testing Chart for times Skill Running Weeks 5 & 6	6 UPPER BODY WKT #2	7 Running 20,40,60 YD SPRINTS X 8 Follow Chart for times Skill Running Weeks 5 & 6	8 FULL BODY WKT # 3 Option: Running Friday or Saturday	9 Running 16 Intervals Follow Testing Chart for times 3/Station Agility Pick 3 for 3 min. Each
11 FULL BODY WKT #1 3/Station Agility Pick 3 for 3 min. Each	Running 17 Intervals Follow Testing Chart for times Skill Running Weeks 7 & 8	13 UPPER BODY WKT #2	14 Running 20,40,60 YD SPRINTS X 8 Follow Chart for times Skill Running Weeks 7 & 8	15 FULL BODY WKT # 3 Option: Running Friday or Saturday	16 Running 18 Intervals Follow Testing Chart for times 3/Station Agility Pick 3 for 3 min. Each
18 FULL BODY WKT #1 3/Station Agility Pick 3 for 3 min. Each	19 Running 18 Intervals Follow Testing Chart for times Skill Running Weeks 7 & 8	20 UPPER BODY WKT #2	21 Running 20,40,60 YD SPRINTS X 8 Follow Chart for times Skill Running Weeks 7 & 8	FULL BODY WKT # 3 Option: Running Friday or Saturday	Running 19 Intervals Follow Testing Chart for times 3/Station Agility Pick 3 for 3 min. Each
25 FULL BODY WKT #1 3/Station Agility Pick 3 for 3 min. Each	26 Running 20 Intervals Follow Testing Chart for times Skill Running Weeks 9 & 10	27 UPPER BODY WKT #2	28 Running 10,20,40 YD SPRINTS X 8 Follow Chart for times Skill Running Weeks 9 & 10	29 FULL BODY WKT # 3 Option: Running Friday or Saturday	30 Running 20 Intervals Follow Testing Chart for times 3/Station Agility Pick 3 for 3 min. Each
1 FULL BODY WKT #1 3/Station Agility Pick 3 for 3 min. Each	2 Running 20 Intervals Follow Testing Chart for times Skill Running Weeks 9 & 10	3 UPPER BODY WKT #2	4 Running 10,20,40 YD SPRINTS X 10 Follow Chart for times Skill Running Weeks 9 & 10	5 Travel Day	6 Report to Camp





2005 Schedule

Sep 1 Eastern Michigan (Thursday Night)

Sep 10 @ Penn State

Sep 17 Western Carolina

Sep 28 at Miami (OH) (Wed. Night - ESPN2)

Oct 1 BYE

Oct 8 @ Pittsburgh

Oct 15 Connecticut

Oct 22 Louisville

Nov 9 West Virginia (Wed. Night)

Nov 12 BYE

Nov 19 @ South Florida

Nov 26 @ Rutgers





BEARCAT TESTING

As you report for camp in August and throughout the year you will be tested in the following seven categories: *The Bottom Line* is you need to be prepared!

Fall Camp Testing:

- 1. Anthropometrical Measurements
 - a. Height, Weight
 - b. Body Fat %
 - 1. Three Site Chest, Abdominal and Thigh
 - 2. Jackson Pollock Formula
 - c. Neck and Arm Circumference
- **2.** Flexibility Sit-in Reach Test 2 attempts
- 3. Explosive Power
 - a. Long Jump -2 attempts
 - b. Vertical 2 attempts
 - c. Cleans 3-6 Reps for Predicted 1RM
- 4. Strength
 - a. Bench 3-6 Reps for Predicted 1RM
 - b. Squat 3-6 Reps for Predicted 1 RM
 - c. Push Press 3-6 Reps for Predicted 1 RM
- 5. Agility 20 Yard Shuttle 2 trials
- **6.** Speed -40 Yard Dash -2 trials
- 7. Long Speed Endurance 20 Intervals
 - a. You Will Run 10 Intervals With 30 seconds Rest Between
 - b. Followed By 10 Intervals With 45 Seconds Rest Between

Goal Times By Position	1 st 10	2 nd 10
OL/ DL	20 Sec.	21 Sec.
TE/FB/LB/K	18 Sec.	19 Sec.
DB/WR/TB/QB	16 Sec.	17 Sec.

Remember Bearcats Are Thick, Quick and Nasty!

"A Champion pays an extra price to be better than anyone else."

-Paul "Bear" Bryant

DISCIPLINE

Discipline implies subjection to a control for the good of the whole, the adherence to rules of policies extended for the coordination of effort

"You teach discipline by doing it over and over; by repetition."

-Vince Lombardi

Only those who have the patience to do simple things perfectly will acquire skills to do difficult things easily.

ATTITUDE

"It is not the critic who counts; not the man who points out how strong man stumbles, or where the doer of deeds could have done them Better. The credit belongs to the man who Is actually in the arena"

-Theodore Roosevelt

The greatest discovery is that a human being can alter his life by altering his attitude of mind

- William James

"Why not go out on a limb? Isn't that where the fruit is?

-Frank Scully

A WINNER'S CREED

If you think you are beaten, you are.

If you think you dare not, you don't.

If you'd like to win, but think you can't, it's almost a cinch you won't.

If you think you'll lose, your lost.

For out in the world we find success begins with a person's will.

It's all in the state of mind.

Life's battles don't always go to the stronger or faster hand.

But sooner or later, the person who wins is the one who thinks

"I.....CAN!"

Colin Powell's Rules

- 1. It ain't as bad as you think. It will look better in the morning.
- 2. Get mad, then get over it.
- 3. Avoid having your ego so close to your position, that when you position falls, your ego goes with it.
- 4. It can be done.
- 5. Be careful what you choose. You may get it.
- 6. Don't let adverse facts stand in the way of a good decision
- 7. You can't make someone else's choices. You shouldn't let someone else make yours.
- 8. Check small things.
- 9. Share credit
- 10. Remain calm. Be kind.
- 11. Have a vision. Be demanding
- 12. Don't take counsel of your fears or naysayers.
- 13. Perpetual optimism is a force multiplier.

"Hold yourself to a higher standard than anyone expects of you. Never excuse yourself"

-Henry Ward Beecher

"There is one key point about picking the so-called "great athlete." It doesn't mean a thing if he doesn't perform with the *team* in mind."

-John Madden

"Excellence is not an act...but a habit"

-Aristotle

"The quality of a persons life is in direct proportion to their commitment to excellence, regardless of their chosen field of endeavor."

-Vince Lombardi





CINCINNATI FLEXIBILITY TRAINING

Flexibility is a term used to define joint mobility and range of motion. The greatest determinants of flexibility are age, activity level and genetics. Most conditioning programs have implemented stretching exercises to prevent injuries such as muscle pulls. Unfortunately there is very little scientific support to substantiate that an increase in muscle pulls usually occur due to an athlete being out of shape, fatigued, or not warmed up. When undergoing a stretching program, the following three stages should be adhered to:

- 1. WARM-UP- It is important to elevate the muscle temperature prior to stretching. This can be done with heat generated during low intensity aerobic exercise, such as slow jog or riding a stationary bike. You should "break a sweat" Before doing extensive stretching exercise!!!
- 2. PRE-STRETCH- Begin with a slow pre-stretch that ads only slight tension to the muscle. This position should be held for 10-30 seconds while the muscle accommodates tension. This phase should be light and should not be painful to the athlete.
- 3. STRETCH During the actual stretching phase, slowly lengthen the muscle group involved. If too much tension is developed too soon, safeguards within the nervous system will be activated (e.g. excessive pain, uncontrolled muscle quivering, contraction of antagonist muscle) and the benefits of the stretch will be lost. When this happens, slowly back off and let the muscles relax, and then proceed. The correct procedure is to develop slight tension, let the tension fade, then proceed then continue to achieve a greater range of motion.

The specific movements you perform for your position will develop the range of motion of the muscles to perform those activities. When you stretch, you develop a range of motion that is specific to that stretch and the limited number of fibers recruited at that point. The range of motion used in sports is different than that developed by stretching. Other differences include the number of muscle fibers recruited, the violence of the movements, and the many different arcs the muscles use to change direction, stop, and backpedal.

The range of motion of the muscles involved is dictated and developed by the activity you perform. You are interested in developing "functional flexibility." When you increase the range of motion of a joint you want to also increase the strength of the muscles in the new range of motion. If you properly strengthen a muscle, you will increase its flexibility. A properly designed strength program should increase an athlete's flexibility.





<u>Tips To Remember When Stretching</u>

- Make sure to warm-up before stretching with 5-10 minutes of some type aerobic activity to elevate muscle temperature. Try to break a sweat.
- **Do not bounce** when you stretch. This could cause injury. Start slowly and work at your own pace.
- Stretch before and after workouts, this will help you to become more flexible.
- Make sure you stretch all body parts- some body part may be less flexible than others. You should take more time with these parts to obtain optimum flexibility.
- Perform each stretch with proper technique-this will help you obtain optimum flexibility.
- Hold each stretch for 20-30 seconds.
- Stretch until you feel light tension- hold the stretch until the tension eases up. Don't go to the point of pain, ease up a bit.
- **Stretch with a partner** when excessive tightness is evident and extra stretching is needed.

CINCINNATI PRE-WORKOUT ROUTINE

Warm-up: Jog

Stretches: See the following pages for descriptions.

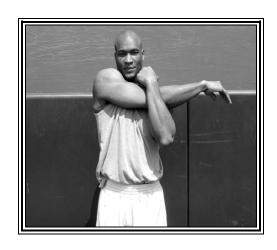
**Perform each stretch 2 x's. Hold each stretch for 30 Seconds





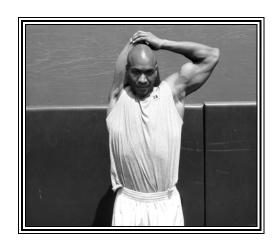
PULL ACROSS (R/L)

- 4. Standing upright pull arm across the chest
- B. Using the opposite arm, pull your arm in towards the chest and reach across the body as far as possible.
- c. Hold the stretch and relax.



PULL OVER (R/L)

- A. Standing upright pull arm up and behind shoulder.
- B. Using the opposite arm, hold the elbow
- C. Pull the arm in behind the head and reach as far as possible
- **D.** Bend at the waist slightly away from the arm being stretched.
- E. Hold the stretch and relax.



FORWARD BEND

- A. Stand upright with your feet together.
- **B.** Exhale and bend forward from your hips.
- C. Go as far down as comfortable.
- **D.** Let your arms hang to the floor. To increase the stretch, hold the back of your legs.
- **E.** Then gently try to pull your Chest to them.
- F. Hold the stretch and relax.

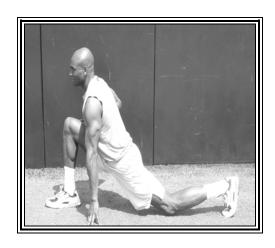






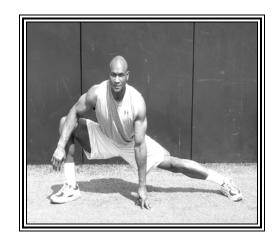
HIP FLEXOR (R/L)

- **A.** In a standing position, Lunge forward with either leg.
- **B.** Make sure your knee doesn't move beyond the ball of your foot.
- **C.** Allow your weight to sink into your hips and allow your chest to move forward.
- **D.** Switch legs and repeat.
- E. Hold The Stretch and relax.



GROIN-1 (R/L)

- A. Stand upright and spread your legs apart.
- **B.** Lean to one side and ensure the knee is aligned with the ball of the foot
- **C.** Exhale, and slowly lunge, and press down, stretching the opposite side of your body.
- **D.** Hold the stretch and relax.
- **E.** Switch sides and repeat.



GROIN-2

- A. Sit upright on the floor
- **B.** Flex your knees and pull your heels into the groin area.
- **C.** Place your elbows on the inside of both upper legs and pull forward.
- **D.** Exhale, and slowly push your legs to the floor.
- E. Hold the stretch and relax.

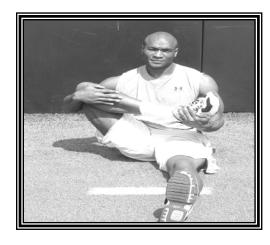






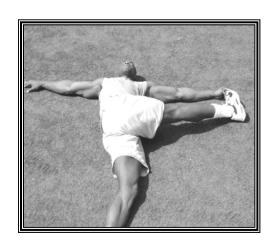
CRADLE (R/L)

- A. Sit upright on the floor with your back flat as if against a wall.
- **B.** Flex one leg and pull the heel towards your body.
- **C.** Grasp the ankle with one hand and hook the knee with the elbow of your opposite arm.
- **D.** Exhale, and slowly pull your foot towards the opposite shoulder.
- E. Hold the stretch and relax.



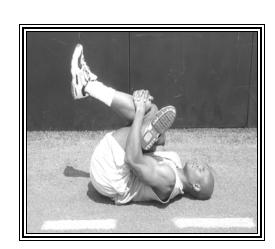
LAY IT BACK (R,L)

- A. Sit upright on the floor with your back flat as if against a wall.
- **B.** Roll your body backwards to allow your back to be flat on the floor.
- **C.** Exhale, and slowly pull your foot to opposite shoulder while keeping your head, shoulders, and back flat on the floor.
- D. Hold the stretch and relax.



PIRIFORMIS STRETCH (R/L)

- A. Lying on your back.
- **B.** Cross your legs as if you might if you were sitting in a chair.
- **C.** Grasp your leg with both hands, pull the knee towards your
- **D.** Chest until you feel the stretch in your buttocks and hips.
- E. Hold the stretch and relax.

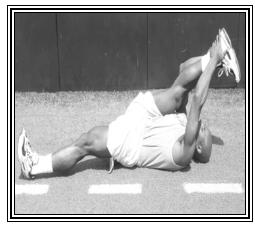






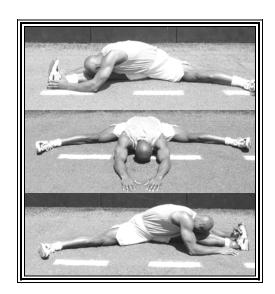
EXTEND AND PULL (R/L)

- A. Lie flat on your back with your legs flexed and heels to the buttocks. close
- B. Inhale, and extend one leg upward.
- **C.** Grasp calf or ankle of upward leg with both of your hands.
- **D.** Exhale, and slowly pull the leg toward your face while keeping your leg straight.
- E. Hold the stretch and relax.



SPREAD IT WIDE (R,M,L)

- **A.** Sit upright on the floor with both legs extended.
- **B.** Spread your legs as wide as possible.
- C. Exhale, and rotate your trunk, and extend upper torso onto extended legs. Also extend the upper torso to the floor in between legs.
- **D.** Try to grasp the ankle or heel with both hands.
- E. Concentrate on keeping the legs and lower back extended.
- F. Hold the stretch and relax.



MODIFIED HURDLER (R,L)

- **A.** Sit upright on the floor with both legs straight.
- **B.** Flex one knee and slide your heel toward you buttocks.
- **C.** Lower the outer side of your thigh and calf onto the floor.
- D. Place your heel against the inner side of your other thigh so that a 90° angle is formed between your extended leg and flexed leg.
- **E.** Exhale, keeping your leg straight, bend at the waist, and lower your extended upper torso onto your thigh.
- F. Hold the stretch and relax.







ROLL AND PULL (R/L)

- A. Lie on your side.
- **B.** Flex one leg and bring your heel toward your buttocks.
- C. Exhale, swing your arm back to grasp your ankle, and pull your heel towards your buttocks without over compressing the knee.
- D. Hold the stretch and relax.



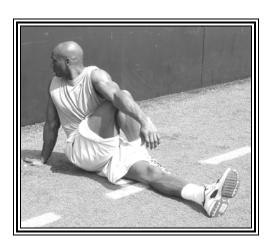
FEET TOGETHER

- **A.** Sit upright on the floor with legs extended.
- **B.** Exhale, and slowly bend forward at your waist.
- **C.** Keep your legs straight, and extend your upper body over your thighs.
- D. Hold the stretch and relax.



SPINAL TWIST (R/L)

- A. Sit upright on the floor with both legs extended and your hands behind your hips for support.
- B. Flex one of your legs and cross your foot over the extended leg.
- C. Place your foot on the outside of your extended leg and slide your heel towards your buttocks.
- D. Reach with your opposite elbow to the outside of your flexed knee, exhale and slowly look over your shoulder while turning your trunk.
- E. Push back on your knee with your elbow.
- F. Hold the stretch and relax.

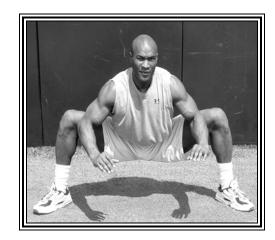






SAIGON SQUAT

- A. Assume a squat position with your heels 12 inches apart and your toes slightly turned out.
- **B.** Place your elbows on the inside portions of your upper legs.
- **C.** Exhale and slowly push your legs outward with your elbows.
- D. Make sure you maintain a flat back, head and eyes up and feet flat on the floor to help reduce stress on the back and knees.
- **E.** Hold the stretch and relax.







Cincinnati Bearcats Dynamic Active Warm-up

The dynamic flexibility-warm-up consists of drills that use sport specific movements to raise your core body temperature and muscle temperature. This will prepare your body for stretching, strength training, sprint training, or any other strenuous activities. This warm up prepares the body for linear movements with greater concentration on the hip flexors, hamstrings, and quadriceps. The lateral movements concentrate on the abductor and adductor groups.

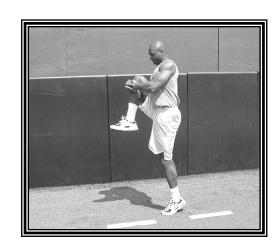
Dynamic flexibility will improve flexibility, balance, proprioception, coordination, and ligament and muscle elasticity. The following drills should be done gradually with proper technique.





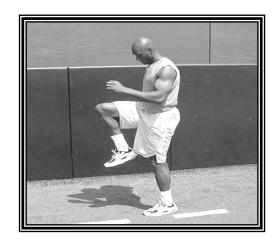
HIGH KNEE WALK

- A. Step forward and grasp your shin and pull your knee toward your chest
- **B.** Extend the stepping leg, and push up on your toes.
- C. Step and repeat with the other leg.
- D. Walk 10-20 yards.



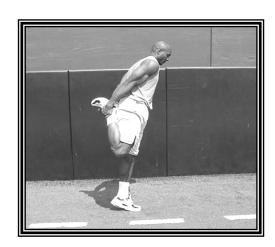
HIGH KNEE SKIPS

- **A.** This is done by gently skipping to wake up the hip flexors.
- **B.** Concentrate on the rhythmic action of the knees.
- C. Don't emphasis on height or speed.
- D. Skip 10-20 yards.



WALKING HEEL PULLS

- **A.** Start by grasping he foot with both hands.
- **B.** Pull the heel to the butt, as you push up onto your toes.
- **C.** This is done with each step while you walk 10-20 yards.

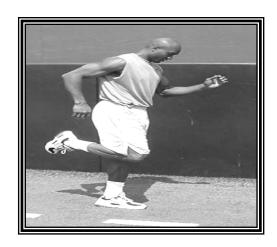






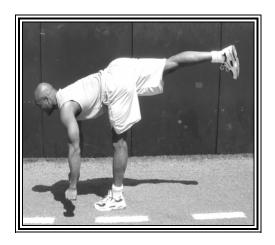
BUTT KICKS

- **A.** Start by running in place while maintaining a good upright posture.
- **B.** Drive your heels to your butt and start moving forward slowly
- C. Make sure you pump your arms.
- **D.** Concentrate on a high repetition of kicks.



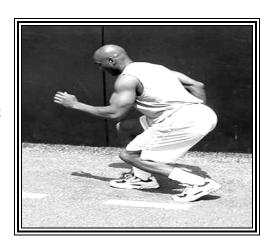
STIFF-LEG DEADLIFT WALK

- A. Start by leaning forward and attempt to lift one leg up to waist height.
- B. Reach both arms down to touch your toes.
- C. Make sure to keep your back flat and head up.
- **D.** Move forward by swinging the back leg down and through and take a big step.
- E. Repeat with the other leg.



BACKPEDAL

- A. Start by crouching and sink your hips down.
- **B.** Keep your feet under or in front of your body, not back.
- **C.** Concentrate on leg extension on the pushing leg.
- **D.** Do not reach your leg to the rear.

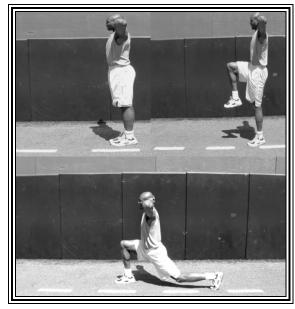






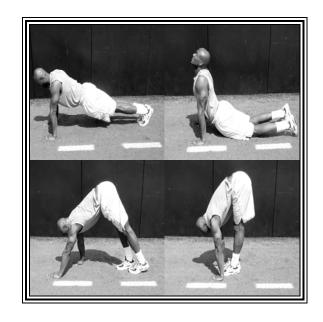
LUNGE WALK

- **A.** Clasp your hands behind your head.
- **B.** Step forward and then drop to a lunge position.
- **C.** Do not allow knee of the forward leg to drift forward past the toes.
- D. Keep your head up and back arched and lean slightly backward.
- **E.** Pause for a count at the bottom position.
- F. Step forward with each step.
- G. Repeat with the opposite leg.



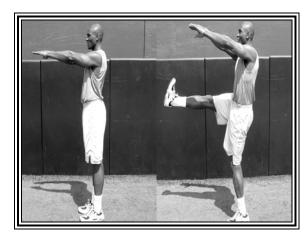
INCHWORM

- **A.** Start in a full push-up position with head up and back flat.
- **B.** From this position drop the hips.
- **C.** Keep your legs straight while tip-toeing your feet up as close as possible to your hands.
- D. Make sure you take small steps.
- **E.** Next, walk your hands forward without moving your feet, continue on to the starting position
- F. Repeat for a target distance.



MONSTER WALK

- A. Start by actively flexing the hip flexors while keeping your leg straight
- **B.** Hold your hands straight out in front of you at shoulder height.
- **C.** Kick out and try to touch your foot to your hand.

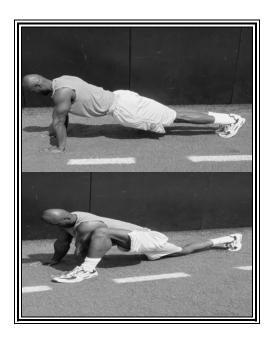






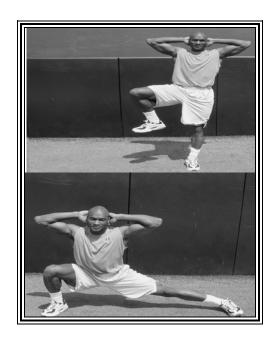
SPIDERMAN

- A. Start in a push-up position
- **B.** Step forward just outside of your hand.
- **C.** Drop the knee of the extended leg to the floor.
- **D.** Return your foot to the starting position.
- E. Repeat with other leg.
- **F.** Continue switching legs for a certain time or reps.



LATERAL LUNGE WALK

- **A.** Squat down over one leg with the other leg fully extended.
- **B.** Focus on stretching the extended leg.
- **C.** Extend the support leg, squat down, shifting weight over to the other leg.
- **D.** Extend that leg and repeat.



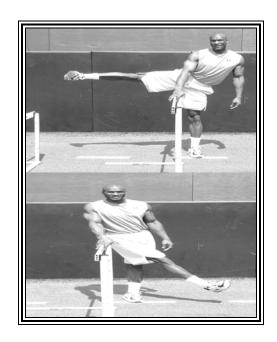




Continuous Active Warm-Up (Hurdle Drills)

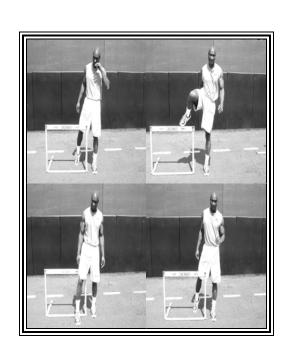
Pendulum Swings (R,L) (F,B)

- **A.** Standing in front or side of hurdle, depending on if you are doing side to side or front to back.
- **B.** Hold onto the hurdle crossbar for support.
- **C.** Swings one leg from side to side, or front to back in a well controlled manner.
- **D.** Switch legs and repeat.



TAPS (R,L) (F,S)

- **A.** Stand upright on side of hurdle.
- **B.** Pick the inside knee up high over the side of the hurdle.
- **C.** Place the leg vertically down on the other side of the hurdle.
- **D.** Tap the foot down and pull the same leg back over the hurdle in the reverse direction.
- **E.** Repeat this action for 10-20 reps.
- **F.** Switch legs and repeat.

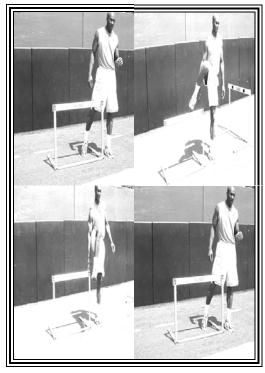






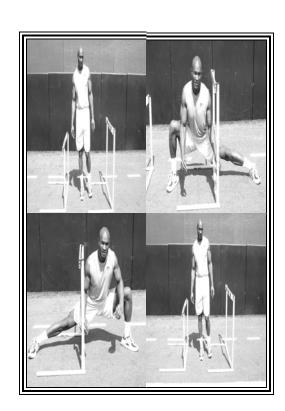
CIRCLES (R,L) (F,B)

- **A.** Stand upright on side of hurdle.
- **B.** Place hurdle in front of leg and rotate leg in a circle pattern over the side of the hurdle.
- **C.** Make sure you rotate leg in both directions.
- **D.** Repeat this action for 10-20 reps.
- **E.** Switch legs and repeat.



LATERAL UNDERS

- **A.** Stand upright near one side of the hurdle.
- **B.** Take a side step underneath the crossbar.
- **C.** Line up your shoulders, hips, and feet and squat down.
- **D.** Keep the hips below the shoulders in a lateral squat position.
- **E.** Maintain a rhythmic stepping pattern under the hurdles
- **F.** Do not let the hands touch the ground or hurdle.

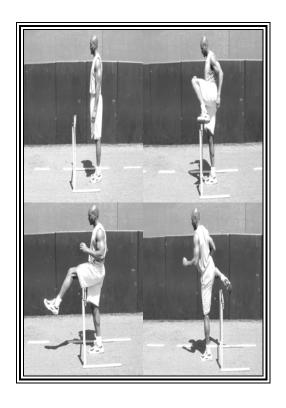






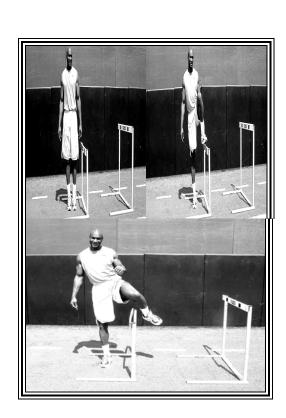
FORWARD OVERS

- **A.** Stand facing the hurdles, feet pointed straightahead.
- **B.** Walk forward and raise lead leg over the first hurdle, leading with knee and reach over with foot.
- **C.** Aggressively pull trail leg over the hurdle after lead leg is planted down.
- **D.** Repeat



LATERAL OVERS

- A. Stand with your side to the hurdle.
- B. Raise and flex the knee of the leg that is closet to the hurdle.
- C. Extend the knee and reach over the hurdle with you're your foot.
- D. Aggressively pull trail leg over the hurdle.
- E. Repeat



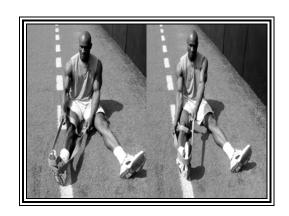




FLEX BAND STRETCHES

ANKLE (Inversion/Eversion)(R/L)

- A. Sitting upright on the floor
- **B.** Wrap the end of the band around the arch of the foot.
- **C.** Hold and pull the inner side of the band and turn your ankle in and out as far as possible.
- **D.** Next grab the outer side of the band and turn the ankle out and then in.



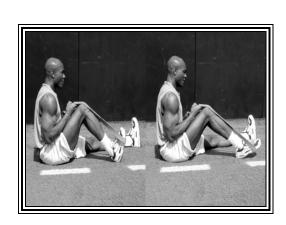
CALF STRETCH (R/L)

- A. Sitting upright on the floor
- B. Wrap the end of the band around the ball of the foot.
- C. Hold the band on each side of the leg.
- **D.** Pull the band towards you, dorsi-flexing the foot.
- **E.** Then, point your toes away from your body planter flexing the foot.
- F. Repeat this action pointing and pulling 10 times.



ACHILLES STRETCH (R/L)

- A. Sitting upright on the floor
- **B.** Wrap the end of the band around the ball of the foot.
- C. Pull your hell up close to your body by flexing the knee.
- **D.** Pull the band to stretch the Achilles.
- E. Hold the stretch and relax

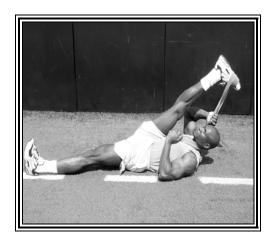






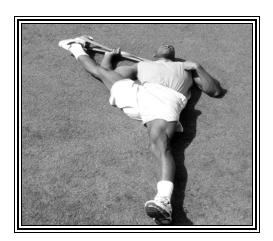
LIE BACK AND BAND PULL (R/L)

- **A.** Wrap the band around the arch of the foot.
- **B.** Lie back on the floor and hold on to the band.
- C. Walk your hand up the band and pull gently back.
- **D.** Hold the stretch and relax



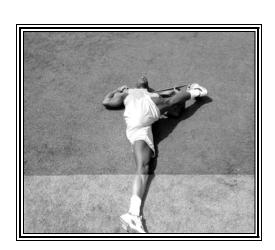
GROIN

- **A.** Wrap the band around the arch of the foot.
- **B.** Lie back on the floor and hold on to the band with the same side hand
- **C.** With the other opposite hand grasp the band and take it behind your head.
- **D.** Pull your leg out to the side as far as possible.
- E. Hold the stretch and relax



IT BAND (R/L)

- **A.** Wrap the band around the arch of the foot.
- **B.** Lie back on the floor and hold on to the band with the opposite hand.
- **C.** With the other hand take the band behind the head.
- **D.** Pull your leg across your body (keep your shoulders on the ground).
- **E.** Hold the stretch and relax.
- **F.** To get more of a stretch, apply more pressure on the band.







ROLL AND PULL THE BAND (R/L)

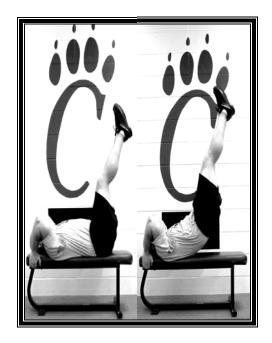
- **A.** Wrap the band around the arch of the foot.
- **B.** Roll onto your stomach and flex the knee.
- **C.** Hold onto the band with both hands.
- **D.** Flex the knee and gently pull.
- **E.** Next pull the knee off the ground and lift the knee off the ground.
- F. Hold the stretch and relax.







Vertical Hip Raise



Toe Touch



Leg Throws







V-Ups



1 & 30 min Abs



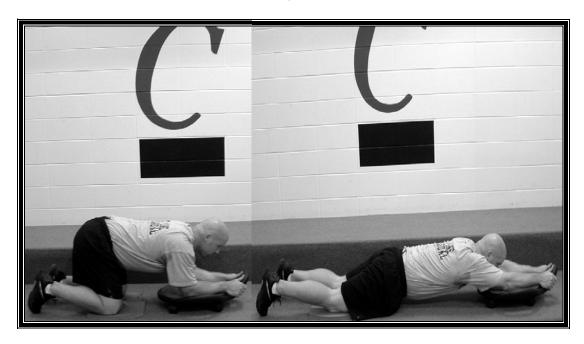
3 Minute Abs







AB Dolly (Elbows)



AB Dolly (Knees)







Band Hip Thrust



Superman



SB Hyper







MANUAL RESISTANCE: A PRODUCTIVE ALTERNATIVE

Manual resistance is an alternative to the more conventional forms of resistance in the strength-training program. A training partner or spotter, rather than a bar or a machine provides the resistance. This type of training could be incorporated into your regular workouts or in situations where no equipment and/or facilities are available. At *CINCINNATI* we use manual resistance (MR) training extensively in all phases of our strength program. As an exercise in our workouts or as the only available training "tool" at home, on vacation, or on the road, MR has definitely proven itself as a valuable form of strength training.

ADVANTAGES OF MANUAL RESISTANCE

There are many advantages to using manual resistance. Some of the advantages include:

- 1. No equipment is required to perform the exercises.
- 2. Large numbers of individuals can be trained simultaneously.
- 3. The muscles can be maximally worked each repetition.
- 4. The speed of the MR exercise can be controlled.

DISADVANTAGES OF MANUAL RESISTANCE

With all of its advantages, MR also has some distinct disadvantages. Every type of equipment available has advantages and disadvantages. By recognizing the limitations of MR, it can help provide a safer and more effective form of exercise. A better understanding of the exercise will also be realized. The major limitations of MR include:

- 1. Two people are needed to perform any MR exercise.
- 2. The lifter must learn how to perform each exercise.
- 3. The spotter must learn how to safely and effectively apply the resistance.
- 4. The lifter may be significantly stronger than the spotter.
- 5. Accountability.

NOTE: Sure, there are limitations to manual resistance. However, these limitations can be overcome by instructors who are willing to invest a little time in developing the ability to teach these exercises as well as providing as much supervision as possible during their execution.





RESPONSIBLITIES OF INSTRUCTOR

- 1. Thoroughly understand the responsibilities of the spotter and the lifter.
- 2. Perform the exercises with another instructor in order to develop the skills needed to spot and perform each exercise.
- 3. If unwilling to perform the exercise at least practice the spotting procedures until they are mastered.
- 4. Minimize the loss in the interpretation of this information from the instructor to the students.

RESPONSIBILITIES OF LIFTER

For manual resistance to be safe and effective, the lifter must assume some responsibilities during the execution of each repetition. These responsibilities include the following four rules:

- 1. Communication with the spotter is essential.
- 2. Keep tension on the muscles.
- 3. Pause momentarily in the contracted position

POINT: Hold any contracted position for a count of 1001 and allow the muscles to develop maximally throughout their full range of motion.

4. Pause momentarily in the contracted position

POINT: Hold any contracted position for a count of 1001 and allow the muscles to develop maximally throughout their full range of motion.

- 5. Exert an all-out effort.
- 6. Only allow four seconds for the lowering phase.





RESPONSIBILITIES OF SPOTTER

It should be more than obvious to anyone interested in MR, the value of a properly educated training partner. The effectiveness of MR exercise is almost totally dependent on the abilities of the spotter. It cannot be emphasized enough how important it is for the instructor to thoroughly educate the participants. For the exercise to be safe and effective, the spotter should strictly adhere to the guidelines outlined herein. The major responsibilities of the spotter include the following:

- 1. Communication whenever necessary and constant coordination with the lifter.
- 2. Do not apply maximum resistance during the first few repetitions.

POINT: If maximum resistance is applied on the first few repetitions injury could result. Less than maximum resistance is required on the first few repetitions.

3. Vary the resistance of each repetition during the raising phase.

POINT: It is the spotter's job is to apply just the right amount of resistance at each point during the raising phase.

- 4. Smooth transition from the raising phase to the lowering phase.
- 5. Add more resistance during the lowering phase.
- 6. Change the angle of resistance being applied.
- 7. Provide enough resistance to stimulate strength gains.
- 8. Do not apply maximum resistance for any exercise in an all out manner during the first few workouts.
- 9. When necessary, apply less resistance as the lifter approaches the muscle's stretched position.

PERFORMING MANUAL RESISTANCE EXERCISES

While performing MR exercise the following guidelines should be used to perform each exercise:

- 1. Perform 12 repetitions or continue exercising for approximately 40 to 70 seconds.
- 2. Perform only one set per exercise.
- 3. Take four seconds for the lowering phase.
- 4. Allow one to two seconds to execute the raising phase of each exercise. This phase will include moving from the starting position and pausing in the contracted position momentarily.
- 5. Exercise 2-3 times a week while alternating days.
- 6. Change the order regularly.

The most important aspect of MR is knowing the proper way to spot and to lift. All of you have been through our MR program from time to time, but for those of you who might have missed something along the way, here is a quick review of the MR exercises we perform at *CINCINNATI*.





MANUAL RESISTANCE EXERCISE

Manual Resistance is an alternative to the more conventional forms of resistance in the strength-training program. A training partner, or spotter, rather than a bar or a machine provides the resistance. This style of training could be incorporated into your regular workouts or in situations where no equipment and/or facilities are available.

There are a variety of MR exercises that can be performed. As discussed on the preceding page a brief description of each exercise will follow. For maximum gains; attempt to reduce the lifter's strength level to zero by performing approximately 10-12 repetitions on each exercise. Remember to follow the guidelines we discussed earlier for the lifter and spotter.

EXERCISE #1 - NECK FLEXION (NECK FLEXORS)

Movement: Flexing only the neck muscles, raise the head forward and upward so that the chin is resting on the chest, pause momentarily and recover to starting position.

Spotting: Place the dominant hand on the lifter's forehead and the non-dominant hand on the lifter's chin. Apply as much pressure as is needed to accommodate for the strength curve of the neck flexors





EXERCISES #2 – HIP ABDUCTION (OUTER THIGH)

Movement: Raise the right leg as high as possible keeping the lower body inline, pause momentarily before recovering to the starting position, mirror with left leg.

Spotting: Kneel or stand near the lifter's knee and place both hands above the knee on the thigh to apply the resistance.









EXERCISE #3 – PUSHUP (CHEST/SHOULDERS/TRICEPS)

Starting: Assume the pushup position with only the feet and hands touching the floor with position the body straight. When unable to properly perform another repetition drop to the hands and knees position keeping the toes off the floor. The hands should be out in front of the shoulders.

Movement: Lower the chest (do not touch thighs or stomach) to a position just short of the floor and recover to starting position.

Spotting: Straddle the lifter and place both hands on the upper back to apply resistance. Ideally the lifter must fail in the hands and knees position.





EXERCISE #4 - SIDE LATERAL RAISE (MEDIAL DELTOID)

Movement: Raise the arms sideward and upward overhead, pause before recovering to the starting position.

Spotting: Stand behind the lifter with hands on the back of the lifter's wrist.





THE BOTTOM LINE





EXERCISE #5 - FRONT RAISE - (FRONT DELTOID)

Movement: Raise the arms forward and upward to a position up and over the head, pause momentarily before recovering to the starting position.

Spotting: Place the hands on the back of the lifter's wrists. Keep them there throughout the exercise. The spotter will have to move close to the lifter in the starting position and away from him as the lifter raises his arms overhead.





EXERCISE #6 - SEATED PRESS (DELTOIDS)

Movement: Extend the arms upward, pause momentarily before recovering to the starting position.

Spotting: Grasp the lifter's hands with the thumbs interlocking and apply the resistance to the hand.









EXERCISE #7 - UPRIGHT ROW (DELTOIDS/TRAPEZIUS/BICEPS)

Movement: Pull the towel upward touching under the chin, pause momentarily before recovering to the starting position.

Spotting: Sitting under the lifter, look skyward with the hands grasping both ends of the towel to provide resistance.





EXERCISE #8 – SEATED ROW (LATS)

Movement: Bend the arm while driving the elbow upward to a position above the upper body, pause momentarily before recovering to the starting position. More stretching will be obtained if the spotter pushes the upper arm to a fully stretched position where the upper arm is touching the chest, mirror with left arm.

Spotting: Standing on the right side of the lifter, place your left hand on his upper back and your right hand on the upper arm just above the elbow, apply resistance.









EXERCISE #9 - BICEPS CURL (BICEPS)

Movement: Raise the bar forward and upward contracting the biceps - Pause momentarily before recovering to starting position.

Spotting: Spotter can manually vary the resistance during the raising an lowering phases of the exercise - Allowing the Lifter to move the elbows forward will involve the biceps but at the expense of allowing the muscles to rest in the contracted position.





EXERCISE #10 - TRICEPS EXTENSION (TRICEPS)

Movement: Raise the forearm forward and upward until the arm is fully extended, pause momentarily before recovering to the starting position.

Spotting: The spotter should position himself so he is kneeling beside the lifter with his right thigh resting against the lifter's upper arm. This will stabilize the lifter's upper arm. The spotter will place his left hand on the outside of the lifter's elbow and his right hand on the wrist where the resistance is applied.









EXERCISE #11 - LEG CURL (HAMSTRINGS)

Movement: Keeping the right thigh flat on the ground, bring the right heel as close to the buttocks as possible. Pause momentarily before recovering to the starting position. Mirror with the left leg.

Spotting: The spotter should kneel along the side of the lifter and apply resistance against the heel in motion.





EXERCISE #12 – LEG EXTENSION (QUADRICEPS)

Movement: Extend the right leg up as high as possible, pause momentarily before recovering to starting position. Mirror with the left leg.

Spotting: The spotter should kneel along the side of the lifter and apply resistance against the heel in motion.







BEARCAT FOOTBALL MAX REP CHART



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THE BOTTOM LINE



BEARCAT FOOTBALL MAX REP CHART



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BEARCAT FOOTBALL MAX REP CHART



345	368	380	391	403	414	426	437	447	449	461	472
350	373	385	397	409	420	432	444	456	467	479	491
355	379	391	403	414	426	438	450	462	474	486	498
360	384	396	408	420	432	444	456	469	481	493	505
365	389	402	414	426	438	451	463	475	487	500	512
370	395	407	420	432	444	457	469	482	494	506	519
375	400	413	425	438	450	463	476	488	501	513	526
380	405	418	431	444	456	469	482	495	507	520	533
385	411	424	437	449	462	475	488	501	514	527	540
390	416	429	442	455	468	481	495	508	521	534	547
395	421	435	448	461	474	488	501	514	527	541	554
400	427	440	454	467	480	494	507	521	534	547	561
405	432	446	459	473	486	500	514	527	541	554	568
410	437	451	465	479	492	506	520	534	547	561	575
415	443	457	471	485	498	512	526	540	554	568	582
420	448	462	476	490	504	518	533	547	561	575	589
425	453	468	482	496	510	525	539	553	567	582	596
430	459	473	488	502	516	531	545	560	574	588	603
435	464	479	493	508	522	537	552	566	581	595	610
440	469	484	499	514	528	543	558	573	587	602	617
445	475	490	505	520	534	549	564	579	594	609	624
450	480	495	510	525	540	556	571	586	601	616	631
455	485	501	516	531	546	562	577	592	607	623	638
460	491	506	522	537	552	568	583	599	614	630	645
465	496	512	527	543	558	574	590	605	621	636	652
470	501	517	533	549	564	580	596	612	627	643	659
475	507	523	539	555	570	586	602	618	634	650	666
480	512	528	544	560	576	593	609	625	641	657	673
485	517	534	550	566	582	599	615	631	647	664	680
490	523	539	556	572	588	605	621	638	654	671	687
495	528	545	561	578	594	611	628	644	661	677	694
500	534	550	567	584	601	617	634	651	668	684	701



PICK AN ABB ROUTINE

BEARCAT FOOTBALL STRENGTH



											CONI	PERENCE
NAME:										POS.		
DATE/ WEIGHT												
WORKOUT #1												
CORE LIFTS DONE												
		WT I		WT	Week 3	WT	Week 4	WT		WT		WT
SQUAT	10		10 8		10 8		6		6		6	
OQUAT	6		6		6		4		4		4	
	o .	I	Įo .	l	Įo .	l	-		-		<u>. </u>	
	Week 1	WT	Week 2	WT	Week 3	WT	Week 4	WT	Week 5	WT	Week 6	WT
	10		10		10		8		8		8	
BENCH PRESS	8		8		8		6		6		6	
	6		6		6		4		4	<u> </u>	4	<u> </u>
FINISH BOTH	SECTI	ONS!!										
LOWER BODY	Week 1	WT	Week 2	WT	Week 3	WT	Week 4	WT	Week 5	WT	Week 6	WT
LEG CURL	10		10		8		10		10		8	
	10		8		8		10		8		8	
Machine #										<u> </u>		
1) SEATED 2) LYING												
LEG EXT.	12		12		12		40		12		12	
LEG EXT.	12		12		12		12		12	<u> </u>	12	J
M.R. LAT HIP	10		10		10		10		10		10	
	1.0		1.0	<u>I</u>	1.0	<u>I</u>	1.0				1.0	
BAND HIP COMBO	3X15		3X15		3X15		3X15		3X15		3X15	
		•								•		
STANDING CALF	15		15		15		15		15		15	
UPPER BODY	Week 1	WT	Week 2	WT	Week 3	WT	Week 4	WT	Week 5	WT	Week 6	WT
ROW	10		10		8		10		10	<u> </u>	8	
	10		8		8		10		8		8	
Machine #											<u> </u>	<u> </u>
1) ISO 2) HIGH 3) PULLDOW	N 4) D.B	. 5) CHI	NS								
PUSH PRESS	8		8		6		8		8		6	
	8		6		6		8		6		6	
			I.	I.	I.	I.						
ROW	10		8		8		10		8		8	
Machine #												
1) ISO 2) HIGH 3) PULLDOW	N 4) D.B	. 5) CHI	NS								
SHRUG	12		12		10		10		10		40	
o into o	12		10		10		12 12		12		10	
Machine #											- <u>-</u> -	
1) ISO 2) HAMMER	3) BARBI	ELL 4) D.	В.	ı	ı	ı	•	•			1	1
, , , = =,	-, -,	, 0.										
4-WAY NECK	10		10		10		10		10		10	
BICEP/TRICEP	3X10		3X10		3X10		3X10		3X10		3X10	





POS

DATE/ WEIGHT			

WORKOUT #2

CORE LIFTS DONE FIRST

	Week 1	WT	Week 2	WT	Week 3	WT	Week 4	WT	Week 5	WT	Week 6	WT
	10		10		10		8		8		8	
B.B. LUNGE	8		8		8		6		6		6	
	6		6		6		4		4		4	

	Week 1	WT	Week 2	WT	Week 3	WT	Week 4	WT	Week 5	WT	Week 6	WT
	10		10		10		8		8		8	
INCLINE PRESS	8		8		8		6		6		6	
	6		6		6		4		4		4	

FINISH BOTH SECTIONS!!

LOWER BODY	Week 1	WT	Week 2	WT	Week 3	WT	Week 4	WT	Week 5	WT	Week 6	WT
LEG CURL	10		10		8		10		10		8	
	10		8		8		10		8		8	
Machine #												
1) SEATED 2) LYING												
LEG PRESS	10-15		10-15		10-15		10-15		10-15		10-15	
	-											
S. L. D.	12		12		12		12		12		12	
STANDING CALF	15		15		15		15		15		15	

UPPER BODY	Week 1	WT	Week 2	WT	Week 3	WT	Week 4	WT	Week 5	WT	Week 6	WT
ROW	10		10		8		10		10		8	
	10		8		8		10		8		8	
Machine #												
1) ISO 2) HIGH 3)	PULLDOW	N 4) D.B	. 5) CHI	NS								
JAMMER PRESS	8		8		6		8		8		6	
	8		6		6		8		6		6	
ROW	10		8		8		10		8		8	
Machine #												
1) ISO 2) HIGH 3)	PULLDOW	N 4) D.B	. 5) CHI	NS								
WEIGHTED DIPS	2XMAX		2XMAX		2XMAX		2XMAX		2XMAX		2XMAX	
	_											
SHRUG	12		12		10		12		12		10	
	12		10		10		12		10		10	
Machine #												
1) ISO 2) HAMMER	3) BARBE	ELL 4) D.	В.									
4-WAY NECK	10		10		10		10		10		10	
BICEP/TRICEP	3X10		3X10		3X10		3X10		3X10		3X10	
PICK AN ABB												
ROUTINE												





POS.

DATE/ WEIGHT			

WORKOUT #3

CORE LIFTS DONE FIRST

	Week 1	WT	Week 2	WT	Week 3	WT	Week 4	WT	Week 5	WT	Week 6	WT
	8		8		8		6		6		6	
P. CLEAN	8		8		8		6		6		6	
	8		8		8		6		6		6	

	Week 1	WT	Week 2	WT	Week 3	WT	Week 4	WT	Week 5	WT	Week 6	WT
	10		10		10		8		8		8	
PUSH PRESS	8		8		8		6		6		6	
	6		6		6		4		4		4	

UPPER BODY	Week 1	WT	Week 2	WT	Week 3	WT	Week 4	WT	Week 5	WT	Week 6	WT
ROW	10		10		8		10		10		8	
	10		8		8		10		8		8	
Machine #												
1) ISO 2) HIGH 3	PULLDOW	N 4) D.B	. 5) CH	INS								
D.B. SHOULDER	8		8		6		8		8		6	
PRESS	8		6		6		8		6		6	
ROW	10		10		8		10		10		8	
	10		8		8		10		8		8	
Machine #												
1) ISO 2) HIGH 3	PULLDOW	N 4) D.B	. 5) CH	INS								
M.R. 3 - WAY	10		10		10		10		10		10	
SHOULDER												
Machine #												
1) MANUAL RESISTAN	CE 2) D	UMBELL										
SHRUG	12		12		10		12		12		10	
	12		10		10		12		10		10	
Machine #												
1) ISO 2) HAMMER	3) BARBI	ELL 4) D.	B.									
4-WAY NECK	10		10		10		10		10		10	
							1	1			1	
BICEP/TRICEP	3X10	1	3X10		3X10		3X10		3X10		3X10	
		1	1		1			1	1	1	1	
PICK AN ABB					-							
ROUTINE												

NAME:										POS.		
DATE/ WEIGHT												
WORKOUT#	1											
WORKOUT #	•											
CORE LIFTS DONE	FIRST											
	Week 7	WT		WT	Week 9	WT	Week 10	WT	Week 11	WT	Week 12	WT
	6		6		6		6		4		4	
SQUAT	6		6		6		4		4		2	
	4		4		4		4		2		2	
	Week 7	WT	Week 8	WI	Week 9	WT	Week 10	WI	Week 11	WI	Week 12	WI
DENCH DDESS	6		6		6		6		4		4	
BENCH PRESS	6		6		6		4		4		2	
	4		4		4		4		2		2	
FINISH BOTH												
OWER BODY	Week 7	WT	Week 8	WT	Week 9	WT	Week 10	WT	Week 11	WT	Week 12	WT
EG CURL	10		10		8		10		10		8	1
	10		8		8		10		8		8	
Machine :	#											
) SEATED 2) LYING	3											
EG EXT.	12		12		12		12		12		12	
I.R. LAT HIP	10		10		10		10		10		10	
		•	•			•	•			•		•
M.R. HIP FLEXION												
	15		15		15		15		15		15	
I LEXION	15		15		15		15		15		15	
			1						1			
STANDING CALF	15		15 15		15		15		15		15	
			1						1			
STANDING CALF		WT	1	wt		wt		wt	1	wt		wī
STANDING CALF	15 Week 7	wt	15 Week 8	wt	15 Week 9	WT	15 Week 10	wt	15 Week 11	wt	15 Week 12	wt
STANDING CALF	15 Week 7	wt	15 Week 8	wt	15 Week 9	wt	15 Week 10	wt	15 Week 11	wT	15 Week 12	wt
STANDING CALF JPPER BODY ROW	Week 7	WT	15 Week 8	wt	15 Week 9	wt	15 Week 10	wt	15 Week 11	wt	15 Week 12	wt
STANDING CALF UPPER BODY ROW Machine :	Week 7 10 10		15 Week 8 10 8		15 Week 9	WT	15 Week 10	wT	15 Week 11	wT	15 Week 12	WT
STANDING CALF JPPER BODY ROW Machine :	Week 7		15 Week 8 10 8		15 Week 9	wt	15 Week 10	wT	15 Week 11	wT	15 Week 12	WT
JPPER BODY ROW Machine :	Week 7 10 10 10 99 10 10 10 10 10 10 10 10 10 10 10 10 10		Week 8 10 8		Week 9 8 8	WT	Week 10 10	WT	Week 11 10 8	WT	Week 12 8 8	wt
JPPER BODY ROW Machine :	Week 7 10 10		Week 8 10 8 . 5) CH		15 Week 9 8 8	wr	15 Week 10 10 10	wt	15 Week 11 10 8	wt	Week 12 8 8	wr
JPPER BODY ROW Machine :	Week 7 10 10 10 99 10 10 10 10 10 10 10 10 10 10 10 10 10		Week 8 10 8		Week 9 8 8	wt	Week 10 10	WT	Week 11 10 8	WT	Week 12 8	wt
DIPPER BODY ROW Machine : 1) ISO 2) HIGH 3	15 Week 7 10 10 3) PULLDOW	/N 4) D.B	15 Week 8 10 8 5) CH		Week 9 8 8 6 6	wt	15 Week 10 10 10 8 8 8	wt	15 Week 11 10 8 8 6 6	wt	Week 12 8 8 6 6 6	wt
JPPER BODY ROW Machine 1) ISO 2) HIGH 3 PUSH PRESS	Week 7 10 10 3) PULLDOW 8 8	/N 4) D.B	Week 8 10 8 . 5) CH		15 Week 9 8 8	wt	15 Week 10 10 10	wt	15 Week 11 10 8	wt	Week 12 8 8	wT
DIPPER BODY ROW Machine 1 PUSH PRESS ROW Machine 1	Week 7 10 10 3) PULLDOW 8 8	/N 4) D.B	15 Week 8 10 8 5 CH	INS	Week 9 8 8 6 6	wt	15 Week 10 10 10 8 8 8	wt	15 Week 11 10 8 8 6 6	wt	Week 12 8 8 6 6 6	WT
DIPPER BODY ROW Machine 1 PUSH PRESS ROW Machine 1	Week 7 10 10 3) PULLDOW 8 8	/N 4) D.B	15 Week 8 10 8 5 CH	INS	Week 9 8 8 6 6	wt	15 Week 10 10 10 8 8 8	WT	15 Week 11 10 8 8 6 6	wt	Week 12 8 8 6 6 6	WT
DISO 2) HIGH 3	15 Week 7 10 10 10 8 8 10 10 10 10 10	/N 4) D.B	15 Week 8 10 8 - 5) CH	INS	8 8 6 6 6 8 8	wt	15 Week 10 10 10 8 8 8	wt	15 Week 11 10 8 8 6 6	wt	Week 12 8 8 6 6 6 8 8	wT
DIPPER BODY ROW Machine () ISO 2) HIGH (Machine () ISO 2) HIGH () ISO 3	15 Week 7 10 10 10 8 8 10 10 10 10 10	/N 4) D.B	15 Week 8 10 8 - 5) CH 8 6	INS	15 Week 9 8 8 8 6 6 6 8 8 10 10 10 10 10 10 10 10 10 10 10 10 10	wT	15 Week 10 10 10 10 10 10 10 10 10 10 10 10 10	WT	15 Week 11 10 8 8 6 8 8	wt	15 Week 12 8 8 8 6 6 6 8 8 10 10 10 10	WT
DIPPER BODY ROW Machine a PUSH PRESS ROW Machine a O J HIGH 3 SHRUG	Week 7 10 10 10 # 8 8 10 4 10 10 11 12 12	/N 4) D.B	15 Week 8 10 8 - 5) CH	INS	8 8 6 6 6 8 8	wt	15 Week 10 10 10 8 8 8	WT	15 Week 11 10 8 8 6 6	wt	Week 12 8 8 6 6 6 8 8	WT
DIPPER BODY ROW Machine of Machi	15 Week 7 10 10 10 # 8 8 10 # 10 11 12 12 12 12	/N 4) D.B	15 Week 8 10 8	INS	15 Week 9 8 8 8 6 6 6 8 8 10 10 10 10 10 10 10 10 10 10 10 10 10	wt	15 Week 10 10 10 10 10 10 10 10 10 10 10 10 10	WT	15 Week 11 10 8 8 6 8 8	wt	15 Week 12 8 8 8 6 6 6 8 8 10 10 10 10	WT
DIPPER BODY ROW Machine a PUSH PRESS ROW Machine a	15 Week 7 10 10 10 # 8 8 10 # 10 11 12 12 12 12	/N 4) D.B	15 Week 8 10 8	INS	15 Week 9 8 8 8 6 6 6 8 8	WT	15 Week 10 10 10 10 10 10 10 10 10 10 10 10 10	WT	15 Week 11 10 8 8 6 8 8	WT	15 Week 12 8 8 8 6 6 6 8 8 10 10 10 10	WT
DISO 2) HIGH 3 Machine 1 Machine 2 Machine 3 PUSH PRESS ROW Machine 3	15 Week 7 10 10 10 # 8 8 10 # 12 12 12 13) BARB	/N 4) D.B	15 Week 8 10 8	INS	15	wt	8 8 8 10 12 12 12 12	WT	15 Week 11 10 8 8 6 6 12 10 10 10 10 10 10 10 10 10 10 10 10 10	WT	8 8 8 10 10 10 10 10 10 10 10 10 10 10 10 10	wt
PUSH PRESS ROW Machine is a series of the property of the pr	15 Week 7 10 10 10 # 8 8 10 # 10 11 12 12 12 12	/N 4) D.B	15 Week 8 10 8	INS	15 Week 9 8 8 8 6 6 6 8 8	wt	15 Week 10 10 10 10 10 10 10 10 10 10 10 10 10	WT	15 Week 11 10 8 8 6 8 8	WT	15 Week 12 8 8 8 6 6 6 8 8 10 10 10 10	wt
PUSH PRESS ROW Machine at the state of the	15 Week 7 10 10 10 # 8 8 10 # 12 12 12 10 10 10 10 11 12 11 10 10	/N 4) D.B	15 Week 8 10 8	INS	15 Week 9 8 8 8 10 10 10 10 10	wt	8 8 8 10 12 12 12 10 10	WT	15 Week 11 10 8 8 6 6 12 10 10 10 10	wt	8 8 8 10 10 10 10 10	wt
DIPPER BODY ROW Machine of Machi	15 Week 7 10 10 10 # 8 8 10 # 12 12 12 13) BARB	/N 4) D.B	15 Week 8 10 8	INS	15	wt	8 8 8 10 12 12 12 12	WT	15 Week 11 10 8 8 6 6 12 10 10 10 10 10 10 10 10 10 10 10 10 10	WT	8 8 8 10 10 10 10 10 10 10 10 10 10 10 10 10	wt
PUSH PRESS ROW Machine is a series of the property of the pr	15 Week 7 10 10 10 # 8 8 10 # 12 12 12 10 10 10 10 11 12 11 10 10	/N 4) D.B	15 Week 8 10 8	INS	15 Week 9 8 8 8 10 10 10 10 10	wt	8 8 8 10 12 12 12 10 10	WT	15 Week 11 10 8 8 6 6 12 10 10 10 10	WT	8 8 8 10 10 10 10 10	wt
PUSH PRESS ROW Machine at the state of the	15 Week 7 10 10 10 # 8 8 10 # 12 12 12 10 10 10 10 11 12 11 10 10	/N 4) D.B	15 Week 8 10 8	INS	15 Week 9 8 8 8 10 10 10 10 10	wt	8 8 8 10 12 12 12 10 10	WT	15 Week 11 10 8 8 6 6 12 10 10 10 10	wt	8 8 8 10 10 10 10 10	WT

NAME:			POS.	
DATE/ WEIGHT				
WORKOUT #2	•			

CORE LIFTS DONE FIRST

	Week 7	WT	Week 8	WT	Week 9	WT	Week 10	WT	Week 11	WT	Week 12	WT
	6		6		6		6		4		4	
B.B. LUNGE	6		6		6		4		4		2	
	4		4		4		4		2		2	

	Week 7	WT	Week 8	WT	Week 9	WT	Week 10	WT	Week 11	WT	Week 12	WT
	6		6		6		6		4		4	
INCLINE PRESS	6		6		6		4		4		2	
	4		4		4		4		2		2	

FINISH BOTH SECTIONS!!

LOWER BODY	Week 7	WT	Week 8	WT	Week 9	WT	Week 10	WT	Week 11	WT	Week 12	WT
LEG CURL	10		10		8		10		10		8	
	10		8		8		10		8		8	
Machine #												
1) SEATED 2) LYING												
LEG PRESS	10-15		10-15		10-15		10-15		10-15		10-15	
	•											
S. L. D.	12		12		12		12		12		12	
STANDING CALF	15		15		15		15		15		15	

LIBBED BODY												
UPPER BODY	Week 7	WT	Week 8	WT	Week 9	WT	Week 10	WT	Week 11	WT	Week 12	WT
ROW	10		10		8		10		10		8	
	10		8		8		10		8		8	
Machine #												
1) ISO 2) HIGH 3)	PULLDOW	'N 4) D.B	. 5) CH	INS								
JAMMER PRESS	8		8		6		8		8		6	
	8		6		6		8		6		6	
		•		•	•	•	•			•	•	
ROW	10		8		8		10		8		8	
Machine #												
1) ISO 2) HIGH 3)	PULLDOW	N 4) D.B	. 5) CH	INS								
WEIGHTED DIPS	2XMAX		2XMAX		2XMAX		2XMAX		2XMAX		2XMAX	
SHRUG	12		12		10		12		12		10	
	12		10		10		12		10		10	
Machine #												
1) ISO 2) HAMMER	3) BARBI	ELL 4) D.	B.									
4-WAY NECK	10		10		10		10		10		10	
	•		•	•				•	•	•		
BICEP/TRICEP	3X10		3X10		3X10		3X10		3X10		3X10	
PICK AN ABB												

NAME:										POS.		
DATE/ WEIGHT												
WORKOUT #3	3											
CORE LIFTS DONE		wt	Week 8	WT	Week 9	wt	Week 10	WT	Week 11	WT	Week 12	NA/T
	6		6	WI	6		6		4	WI	4	WI
P. CLEAN	6		6		6		4		4		2	
	4		4		4		4		2		2	
	Week 7	WT		WT		WT	Week 10	WT	Week 11	WT	Week 12	WT
PUSH PRESS	6		6		6		4		4		2	
l GOITT REGG	4		4		4		4		2		2	
UPPER BODY	Week 7	WT	Week 8	WT	Week 9	WT	Week 10	WT	Week 11	wt	Week 12	WT
ROW	10		10		8		10		10		8	
	10		8		8		10		8		8	
Machine #												
1) ISO 2) HIGH 3) PULLDOW	/N 4) D.B	. 5) CHI	NS								
D.B. SHOULDER	8		8		6		8		8		6	
PRESS	8		6		6		8		6		6	
	_	1	1	1	1				1			
ROW	10		10		8		10		10		8	
	10		8		8		10		8		8	
Machine #												
1) ISO 2) HIGH 3) PULLDOW	/N 4) D.B	. 5) CHI	NS								
M.R. 3 - WAY	10		10		10		10		10		10	
SHOULDER												
Machine #												
1) MANUAL RESISTAN	ICE 2) D	UMBELL										
SHRUG	12		12		10		12	_	12		10	
	12		10		10		12		10		10	
Machine # 1) ISO 2) HAMMER		ELL 4) D.	B								<u> </u>	
1,100 Z)TIAWWEN	O) DANDI		· .									
4-WAY NECK	10		10		10		10		10		10	
DIOED/ED:	1	1				1	ı	ı		1	1	
BICEP/TRICEP	3X10		3X10		3X10		3X10		3X10		3X10	
PICK AN ABB												
PICK AN ABB											 	



PERCENTAGE MAX REP CHART



	85										
12	45	5	65								
10	50	4	70								
8	55	3	75								
6	60	2	80								

	95									
12	50	5	70							
10	55	4	75							
8	60	3	80							
6	65	2	85							

105									
12	55	5	80						
10	60	4	85						
8	65	3	90						
6	75	2	95						

	115									
12	60	5	95							
10	65	4	100							
8	80	3	100							
6	90	2	105							

	125				
12	65	5	105		
10	70	4	110		
8	85	3	110		
6	100	2	115		

135				
12	70	5	110	
10	75	4	115	
8	90	3	120	
6	105	2	125	

145				
12	75	5	120	
10	85	4	125	
8	100	3	130	
6	115	2	135	

155					
12	80	5	125		
10	90	4	130		
8	105	3	135		
6	120	2	140		

	165				
12	85	5	130		
10	95	4	135		
8	110	3	140		
6	125	2	150		

5 140	90	
		12
4 145	100	10
3 150	115	8
2 155	135	6
3 150	115	8

185				
12	90	5	150	
10	105	4	155	
8	125	3	160	
6	145	2	165	

195				
12	100	5	155	
10	110	4	160	
8	130	3	165	
6	150	2	175	

205				
12	105	5	160	
10	115	4	165	
8	135	3	175	
6	155	2	185	

215				
12	110	5	165	
10	120	4	170	
8	140	3	185	
6	160	2	195	

225				
12	115	5	175	
10	125	4	180	
8	145	3	190	
6	170	2	200	

	235				
12	120	5	185		
10	130	4	190		
8	150	3	200		
6	175	2	210		

245				
12	125	5	190	
10	140	4	195	
8	160	3	205	
6	185	2	220	

	255				
12	130	5	195		
10	145	4	205		
8	165	3	210		
6	190	2	230		

265				
12	135	5	205	
10	150	4	210	
8	170	3	225	
6	200	2	240	

	275					
12	140	5	210			
10	155	4	220			
8	180	3	235			
6	205	2	250			

285				
12	145	5	225	
10	160	4	230	
8	185	3	240	
6	215	2	255	

	295				
12	150	5	230		
10	160	4	235		
8	190	3	250		
6	225	2	265		

	305					
12	155	5	240			
10	170	4	245			
8	200	3	260			
6	230	2	275			

315				
12	160	5	245	
10	175	4	250	
8	205	3	270	
6	235	2	285	

325				
12	165	5	255	
10	180	4	260	
8	210	3	270	
6	245	2	290	

	335				
12	170	5	260		
10	190	4	270		
8	220	3	285		
6	250	2	300		

345				
12	175	5	265	
10	195	4	275	
8	225	3	295	
6	260	2	310	

	355				
12	180	5	275		
10	200	4	285		
8	230	3	300		
6	265	2	320		

365				
12	185	5	285	
10	205	4	290	
8	235	3	310	
6	275	2	330	

375				
2	190	5	290	
0	210	4	300	
	245	3	320	
	280	2	335	
		2 190 0 210 245	2 190 5 0 210 4 245 3	

385			
12	200	5	300
10	210	4	310
8	250	3	325
6	290	2	345

395			
12	200	5	310
10	220	4	315
8	255	3	335
6	295	2	355

405			
12	205	5	315
10	225	4	325
8	265	3	345
6	305	2	365

	415				
12	210	5	325		
10	230	4	335		
8	275	3	355		
6	315	2	375		

425				
12	215	5	330	
10	235	4	345	
8	275	3	365	
6	325	2	385	

	435				
12	220	5	340		
10	240	4	355		
8	280	3	375		
6	335	2	395		



PERCENTAGE MAX REP CHART



445				
12	230	5	345	
10	250	4	360	
8	290	3	380	
6	335	2	400	

455			
12	230	5	355
10	250	4	365
8	295	3	385
6	340	2	410

465			
12	235	5	360
10	260	4	370
8	300	3	395
6	350	2	420

475			
12	240	5	370
10	260	4	380
8	310	3	405
6	355	2	425

485				
12	245	5	380	
10	270	4	390	
8	315	3	410	
6	365	2	435	

	495				
12	250	5	385		
10	275	4	395		
8	320	3	420		
6	370	2	445		

505				
12	260	5	395	
10	280	4	405	
8	330	3	430	
6	380	2	455	

515				
12	260	5	400	
10	285	4	410	
8	335	3	440	
6	385	2	465	

525			
12	265	5	410
10	290	4	420
8	340	3	445
6	395	2	470

535				
12	270	5	415	
10	300	4	430	
8	345	3	455	
6	400	2	480	

545				
12	275	5	425	
10	300	4	435	
8	355	3	465	
6	410	2	490	

555				
12	280	5	430	
10	310	4	445	
8	360	3	470	
6	415	2	500	

	565				
12	290	5	440		
10	310	4	450		
8	365	3	480		
6	425	2	510		

575				
12	290	5	450	
10	320	4	460	
8	375	3	490	
6	430	2	515	

585				
12	295	5	455	
10	325	4	470	
8	380	3	495	
6	440	2	525	

	595				
12	300	5	465		
10	330	4	475		
8	385	3	505		
6	445	2	535		

	605					
12	300	5	470			
10	335	4	485			
8	395	3	515			
6	455	2	545			

615				
12	305	5	480	
10	335	4	490	
8	400	3	520	
6	460	2	555	

625				
12	310	5	485	
10	340	4	500	
8	405	3	530	
6	470	2	560	

	635				
12	315	5	495		
10	345	4	510		
8	410	3	540		
6	475	2	570		
_					

	645					
12	320	5	500			
10	350	4	520			
8	415	3	550			
6	485	2	580			

	655				
12	325	5	510		
10	355	4	525		
8	425	3	555		
6	490	2	590		

	665					
12	330	5	520			
10	365	4	530			
8	430	3	565			
6	500	2	600			

	675				
12	335	5	525		
10	370	4	540		
8	440	3	575		
6	505	2	610		

	685				
12	340	5	535		
10	375	4	550		
8	445	3	580		
6	525	2	615		

	695				
12	345	5	545		
10	380	4	555		
8	450	3	590		
6	530	2	625		

705				
12	350	5	550	
10	385	4	565	
8	460	3	600	
6	540	2	635	

	715					
12	355	5	555			
10	390	4	570			
8	465	3	605			
6	545	2	645			

	725						
12	360	5	560				
10	395	4	575				
8	475	3	615				
6	555	2	655				

	735						
12	370	5	570				
10	405	4	585				
8	485	3	625				
6	565	2	670				





SPECIFICITY OF SKILL & SKILL PATTERN RUNNING

Skill and exercise are two separate qualities. Each must be developed separately. To improve a skill you must practice that specific skill. The motor learning experts now inform us that it's impossible to recreate the neuromuscular pattern used to perform a skill unless that specific skill is performed. As soon as you add resistance to a skill, it becomes exercise or a new skill.

Motor skills can be classified as either "open" or "closed". Athletic skills can be place on a continuum having what are called "open" and "closed" categories. Open skills involve actions, which take place in a temporarily and/or spatially changing environment.

- 1. The initiation of an open skill can be a visual cue (e.g., a tennis player reacting to an opponent's serve), an auditory cue (e.g., an offensive lineman's reaction to a snap count), or some other external stimulus.
- 2. Open skills are usually "forced-paced" in nature, due to the fact that the performer is required to respond to numerous types of feedback and must do so at times when he is "on the run".
- 3. "Closed" skills, on the other hand, usually take place in a stable, predictable environment. Closed skills also have clearly defined beginning and ending points, with feedback playing a minor role on the skill initiated.
- 4. As you will see, it is important to distinguish between "open" and "closed" skills when designing training programs to teach these skills since skills are specific in nature.

The experts state that there are three types of skill transfer:

- 1. Positive
- 2. Neutral
- 3. Negative.
 - a. **Positive** transfer results from the practice of the specific skill. Whatever the skill (throwing a ball, catching a ball, pass protecting, rushing the passer), you must practice that specific skill to get better at it.
 - b. **Neutral** transfer results in no transfer, good or bad. Playing tennis will not help you become a better foul shooter, but it won't hinder your skill either.
 - c. **Negative** transfer can occur if you perform an exercise or skill similar to, but not identical to, the skill itself. It can actually adversely affect our skill level itself.





SKILL PATTERN RUNNING

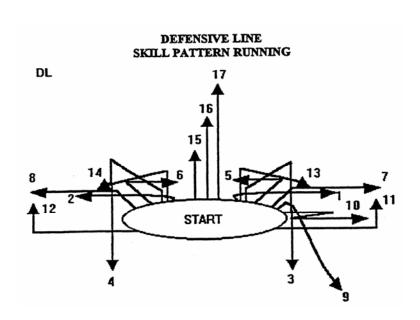
These skill patterns will help you simulate actual movements that are made on the football field for your individual position. The recovery rates will be decreased each week as we near training camp. This type of running will not only help you get in shape for camp, but will also help to work the muscles that may be problems for many people (e.g., hip flexor, groin, lateral hip, etc.).

Run each set of patterns at full speed from your stance and jog back to the starting point after each repetition is completed. Get in your position stance and start the next repetition. Start the clock when you start your first repetition and stop the clock when you finish your last repetition of each set. Write down what surface you run on, grass or turf.

Note: You should try to make your skill workout as specific as possible. This means that quarterbacks should throw and run with the ball, receivers should run routes, defensive backs should cover, etc. Try and complete these with a partner or small groups whenever possible.







		SET 1	SET 2	SET 3
PATTERNS	REPS	PATTERNS	PATTERNS	PATTERNS
1. Down line pursuit 10 yds.	1	5	16	17
2. Down line pursuit 10 yds.	2	9	12	8
3. Pass rush go to ball Rt. 20 yds.	3	11	6	1
4. Pass rush go to ball Lt. 20 yds.	4	13	3	13
5. Fire in Rt. change direction 15 yds.	5	10	7	5
6. Fire in Lt. change direction 15 yds.	6	1	14	2
7. Fire in chase Rt.	7	2	4	3
8. Fire in chase Lt.	8	17	15	14
9. Pursuit save TD 25 yds.	9	8	9	16
10. Lateral race 5-5-5 yds.	10	15	10	1
11 C :				

- 11. Sprint out contain Rt. 10 yds.
 12. Sprint out contain Lt. 10 yds.
 13. Screen Rt. chase 15 yds.
 14. Screen Lt. chase 15 yds.





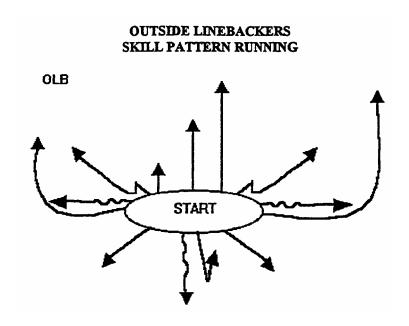
15. Sprint 10 yds.16. Sprint 20 yds.17. Sprint 20 yds.

Run each set of patterns at full speed from your stance and jog back to the starting point after each rep is completed. Get in your position stance and start the next rep. Start the clock when you start your first rep and stop the clock when you finish your last rep of each set. Write down what surface you run on grass or turf.

Date	Surface	Time	Date	Surface	Time
Set 1	3:00 min. rest	Set 1	2:45 min. rest		
Set 2	· · · · · · · · · · · · · · · · · · ·	Set 2	2:45 min. rest		
Date	Surface	Time	Date	Surface	_ Time
Set 1	2:30 min. rest	Set 1	2:15 min. rest		
Set 2			2:15 min. rest		
		Set 3	2:15 min. rest		
Date	Surface	Time	Date	Surface	Time
Set 1	2:00 min. rest	Set 1	2:00 min. rest		
Set 2	2:00 min. rest	Set 2	2:00 min. rest		
Set 3	2:00 min rost				
Date	Surface	Time	Date	Surface	Time
Set 1	2:00 min. rest	Set 1	2:00 min. rest		
Set 2		Set 2	2:00 min. rest		
Set 3	• • • •	Set 3	2:00 min. rest		
Repeat Set 1	2:00 min. rest				
Reneat Set 2	2:00 min_rest				







		SET 1	SET 2	SET 3
PATTERNS	REPS	PATTERNS	PATTERNS	PATTERNS
1. Back pedal 5 yds., 5 yds. forward	1 1	3	1	6
2. Arc Rt. 20 yds.	2	6	10	12
3. Arch Lt. 20 yds.	3	7	8	11
4. Drop Rt. 12 yds.	4	1	12	2
5. Drop Lt. 12 yds.	5	13	4	7
6. Backpedal 15 yds.	6	5	11	6
7. 1 slide crash Rt. 5 yds.	7	2	3	3
8. 1 slide crash Lt. 5 yds.	8	9	9	5
9. 2 slides lateral run Rt. 10 yds.	9	12	1	12
10. 2 slides lateral run Lt. 10 yds.	10	11	13	4
11 C F 1-				

- 11. Sprint 5 yds.12. Sprint 20 yds.13. Sprint 40 yds.





Run each set of patterns at full speed from your stance and jog back to the starting point after each rep is completed. Get in your position stance and start the next rep. Start the clock when you start your first rep and stop the clock when you finish your last rest of each set. Write down what surface you run on grass or turf.

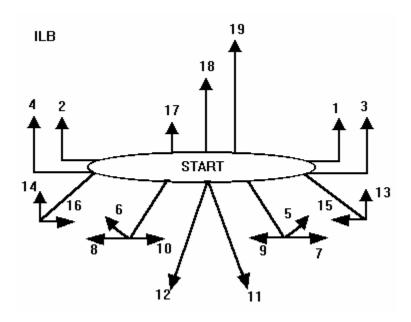
Time

<u> </u>
Time
Time





INSIDE LINEBACKERS SKILL PATTERN RUNNING



			SET 1	SET 2	SET 3
PATTERNS		REPS	PATTER	NS PATTE	RNS PATTERNS
1.	6 slides Rt. 5 yds. Up	1	9	2	5
2.	6 slides Lt. 5 yds. Up	2	1	6	4
3.	6 lateral run Rt. 5 yds. up	3	11	15	8
4.	6 lateral run Lt. 5 yds. up	4	13	18	19
5.	Drop 12 Rt. 7 yds. up	5	17	3	10
6.	Drop 12 Lt.7 yds. Up	6	8	17	13
7.	Drop 12 Rt. 10 yds. out	7	15	7	9
8.	Drop 12 Lt. 10 yds. out	8	10	19	17
9.	Drop 12 Rt. 10 yds. In	9	4	14	11
10.	Drop 12 Lt 10 yds. in	10	19	12	18

- 11. Lateral run drop Rt. 15 yds.
- 12. Lateral run drop Lt. 15 yds.
- 13. Drop 10 flat Rt. 5 yds. up
- 14. Drop 10 flat Lt. 5 yds. up
- 15. Drop 10 flat Rt. 5 yds. in
- 16. Drop 10 flat Lt. 5 yds. in
- 17. Sprint 5 yds.
- 18. Sprint 20 yds.





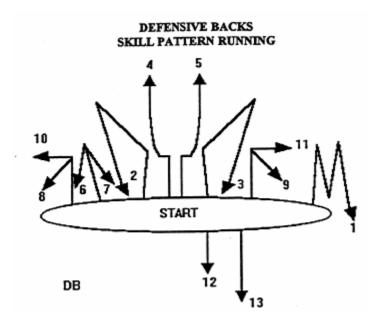
19. Sprint 40 yds.

Run each set of patterns at full speed from your stance and jog back to the starting point after each rep is completed. Get in your position stance and start the next rep. Start the clock when you start your first rep and stop the clock when you finish your last rest of each set. Write down what surface you run on grass or turf.

Date	Surface	Time	<u> </u>		
Set 1	3:00 min. rest	Set 1	2:45 min. rest		
Set 2	3:00 min. rest	Set 2	2:45 min. rest		_
Date	Surface	Time	Date	Surface	_ Time
Set 1	2:30 min. rest	Set 1	2:15 min. rest		
Set 2	2:30 min. rest	Set 2	2:15 min. rest		_
		Set 3	2:15 min. rest		
Date	Surface	Time	Date	Surface	Time
Set 1	2:00 min. rest	Set 1	2:00 min. rest		_
Set 2	2:00 min. rest	Set 2	2:00 min. rest		
Set 3	2:00 min. rest				
Date	Surface	Time	Date	Surface	Time
Set 1	2:00 min. rest	Set 1	2:00 min. rest		_
	2:00 min. rest	Set 2	2:00 min. rest		_
Set 3	2:00 min. rest	Set 3	2:00 min. rest		_
Reneat Set 1	2:00 min_rest				







		SET 1	SET 2	SET 3
PATTERNS	REPS	PATTERNS	PATTERNS	PATTERNS
1. M drill 7 yds.	1	8	13	3
2. Triangle Rt. 40 yds.	2	11	1	10
3. Triangle Lt. 40 yds.	3	12	11	8
4. Streak Rt. 20 yds.	4	1	6	7
5. Streak Lt. 20 yds.	5	6	2	1
6. Back 7 & up Lt. 7 yds.	6	4	8	12
7. Back 7 & up Lt. 7 yds.	7	3	5	9
8. Back 10 45 Rt. 5 yds.	8	7	7	4
9. Back 10 45 Lt. 5 yds.	9	10	9	6
10. Back 10 90 Rt. 7 yds.	10	9	12	13

- 11. Back 10 90 Lt. 7 yds. 12. Sprint 10 yds. 13. Sprint 40 yds.





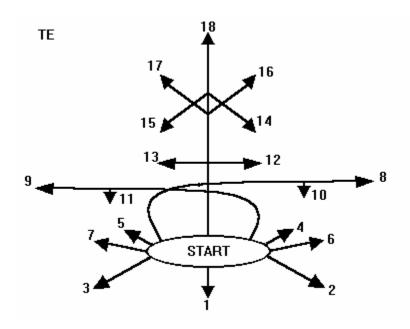
Run each set of patterns at full speed from your stance and jog back to the starting point after each rep is completed. Get in your position stance and start the next rep. Start the clock when you start your first rep and stop the clock when you finish your last rest of each set. Write down what surface you run on grass or turf.

Date	Surface	Time	Date	Surface	Time
Set 1	3:00 min. rest	Set 1	2:45 min. rest		
Set 2	3:00 min. rest	Set 2	2:45 min. rest		_
Date	Surface	Time	Date	Surface	Time
Set 1	2:30 min. rest	Set 1	2:15 min. rest		
Set 2		Set 2	2:15 min. rest		
Set 3	2:15 min. rest				_
Date	Surface	Time	Date	Surface	Time
Set 1	2:00 min. rest	Set 1	2:00 min. rest		
Set 2	• • • • • • • • • • • • • • • • • • • •	Set 2	2:00 min. rest		_
Set 3	2:00 min. rest				_
Date	Surface	Time	Date	Surface	Time
Set 1	2:00 min. rest	Set 1	2:00 min. rest		
Set 2		Set 2	2:00 min. rest		_
Set 3		Set 3	2:00 min. rest		
1	2:00 min. rest				
Reneat Set 2	2:00 min_rest				





TIGHT ENDS SKILL PATTERN RUNNING



		SET 1	SET 2	SET 3
PATTERNS	REPS	PATTERNS	PATTERNS	PATTERNS
1. Set up 5 yds.	1	6	18	2
2. Shuffle Rt. 5 yds.	2	4	3	4
3. Shuffle Lt. 5 yds.	3	15	11	15
4. Angle block Rt. 5 yds.	4	1	5	9
5. Angle block Lt. 5 yds	. 5	18	13	13
6. Flat Rt. 15 yds.	6	13	14	10
7. Flat Lt. 15 yds.	7	2	1	16
8. Drag Rt. 20 yds.	8	16	17	6
9. Drag Lt. 20 yds.	9	10	7	1
10. Stop Rt. 10 yds.	10	13	8	18

- 11. Stop Lt. 10 yds.
- 12. Hook Rt. 10 yds.
- 13. Hook Lt. 10 yds.
- 14. Curl Rt. 16 yds.
- 15. Curl Lt. 16 yds.
- 16. Corner Rt.
- 17. Corner Lt.
- 18. Steak 40 yds.





Run each set of patterns at full speed from your stance and jog back to the starting point after each rep is completed. Get in your position stance and start the next rep. Start the clock when you start your first rep and stop the clock when you finish your last rest of each set. Write down what surface you run on grass or turf.

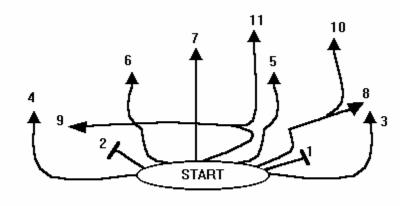
Date	Surface	Time	Date	Surface	Time
Set 1	3:00 min. rest	Set 1	2:45 min. rest		
Set 2	3:00 min. rest	Set 2	2:45 min. rest		_
Date	Surface	Time	Date	Surface	Time
Set 1	2:30 min. rest	Set 1	2:15 min. rest		
	2:30 min. rest		2:15 min. rest		
		Set 3	2:15 min. rest		
Date	Surface	Time	Date	Surface	Time
Set 1	2:00 min. rest	Set 1	2:00 min. rest		
Set 2	• • • • • • • • • • • • • • • • • • • •	Set 2	2:00 min. rest		
Set 3	2:00 min. rest				
Date	Surface	Time	Date	Surface	Time
	2:00 min. rest		2:00 min. rest		
Set 2		Set 2	2:00 min. rest		
Set 3		Set 3	2:00 min. rest		
	2:00 min. rest				
Repeat Set 2	2:00 min. rest				







OFFENSIVE RUNNING BACKS SKILL PATTERN RUNNING



RB

		SET 1	SET 2	SET 3
PATTERNS	REPS	PATTERNS	PATTERNS	PATTERNS
1. Block Rt. 5 yds.	1	9	1	11
2. Block Lt. 5 yds.	2	5	6	8
3. Pitch Rt. 15 yds.	3	2	9	2
4. Pitch Lt. 15 yds.	4	7	7	5
5. Slant Rt. 20 yds.	5	3	3	9
6. Slant Lt. 20 yds.	6	8	4	1
7. Dive 40 yds.	7	11	2	4
8. Flat 15 yds.	8	1	6	7
9. Drag 20 yds.	9	4	10	2
10. Go 30 yds.	10	10	2	10
11 Streak 50 vds				





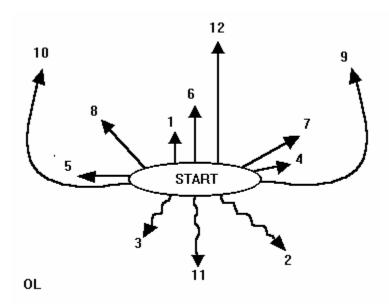
Run each set of patterns at full speed from your stance and jog back to the starting point after each rep is completed. Get in your position stance and start the next rep. Start the clock when you start your first rep and stop the clock when you finish your last rest of each set. Write down what surface you run on grass or turf.

Date	Surface	Time	Date	Surface	Time
Set 1	3:00 min. rest	Set 1	2:45 min. rest		
Set 2	3:00 min. rest	Set 2	2:45 min. rest		_
Date	Surface	Time	Date	Surface	Time
Set 1	2:30 min. rest	Set 1	2:15 min. rest		
	2:30 min. rest	~ ~	2:15 min. rest 2:15 min. rest		
Date	Surface	Time	Date	Surface	Time
Set 1	2:00 min. rest	Set 1	2:00 min. rest		
Set 2	2:00 min. rest	$\alpha + \alpha$	2:00 min. rest		
Set 3	2:00 min. rest				
Date	Surface	Time	Date	Surface	Time
Set 1	2:00 min. rest	Set 1	2:00 min. rest		
	2:00 min. rest	Set 2	2:00 min. rest		
Set 3		Set 3	2:00 min. rest		
	2:00 min. rest				
Reneat Set 2	2:00 min_rest				





OFFENSIVE LINE SKILL PATTERN RUNNING



		SET 1	SET 2	SET 3
PATTERNS	REPS	PATTERNS	PATTERNS	PATTERNS
1. Sprint 5 yds.	1	4	9	12
2. Set up Rt. 5 yds.	2	8	7	2
3. Set up Lt. 5 yds.	3	12	12	10
4. Shuffle Rt. 5 yds.	4	1	11	7
5. Shuffle Lt. 5 yds.	5	11	3	5
6. Sprint 10 yds .	6	10	6	1
7. Angle block Rt. 10 yds.	7	5	1	4
8. Angle block Lt. 10 yds.	8	2	8	8
9. Pull Rt. 15 yds.	9	7	4	11
10. Pull Lt. 15 yds.	10	6	12	9

- 11. Back shuffle 20 yds. 12. Sprint 40 yds.





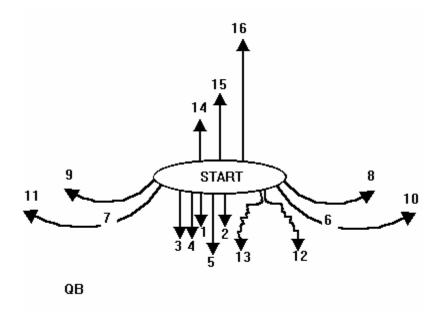
Run each set of patterns at full speed from your stance and jog back to the starting point after each rep is completed. Get in your position stance and start the next rep. Start the clock when you start your first rep and stop the clock when you finish your last rest of each set. Write down what surface you run on grass or turf.

Date	Surface	Time	Date	Surface	Time
Set 1	3:00 min. rest	Set 1	2:45 min. rest		
Set 2	3:00 min. rest	Set 2	2:45 min. rest		_
Date	Surface	Time	Date	Surface	Time
Set 1	2:30 min. rest	Set 1	2:15 min. rest		
	2:30 min. rest		2:15 min. rest		
		Set 3	2:15 min. rest		
Date	Surface	Time	Date	Surface	Time
Set 1	2:00 min. rest	Set 1	2:00 min. rest		
Set 2	• • • • • • • • • • • • • • • • • • • •	Set 2	2:00 min. rest		
Set 3	2:00 min. rest				
Date	Surface	Time	Date	Surface	Time
	2:00 min. rest		2:00 min. rest		
Set 2		Set 2	2:00 min. rest		
Set 3		Set 3	2:00 min. rest		
	2:00 min. rest				
Repeat Set 2	2:00 min. rest				





QUARTERBACKS SKILL PATTERN RUNNING



			SET 1	SET 2	SET 3
PA'	TTERNS	REPS	PATTERNS	PATTERNS	PATTERNS
1.	3-step drop	1	4	9	16
2.	3-step drop back-pedal	2	8	7	2
3.	5-step (hit & throw)	3	13	12	10
4.	5-step (hitch & throw)	4	1	11	7
5.	7-step (hitch & throw)	5	15	3	5
6.	Sprint draw action Rt.	6	10	16	13
7.	Sprint draw action Lt.	7	5	1	14
8.	21 naked action Rt.	8	2	8	1
9.	21 naked action Lt.	9	12	4	11
10.	Sprint action Rt.	10	14	15	9

- 11. Sprint action Lt.12. Pass 38 action Rt.
- 13. Pass 38 action Lt.

- 14. Sprint 10 yds.15. Sprint 25 yds.16. Sprint 40 yds.





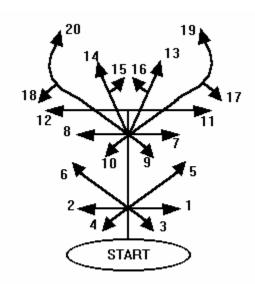
Run each set of patterns at full speed from your stance and jog back to the starting point after each rep is completed. Get in your position stance and start the next rep. Start the clock when you start your first rep and stop the clock when you finish your last rest of each set. Write down what surface you run on grass or turf.

Date	Surface	Time	Date	Surface	Time
Set 1	3:00 min. rest	Set 1	2:45 min. rest		
Set 2	3:00 min. rest	Set 2	2:45 min. rest		
Date	Surface	Time	Date	Surface	Time
Set 1	2:30 min. rest	Set 1	2:15 min. rest		
		Set 2	2:15 min. rest		
		Set 3	2:15 min. rest		
Date	Surface	Time	Date	Surface	Time
Set 1	2:00 min. rest	Set 1	2:00 min. rest		
		Set 2	2:00 min. rest		
Set 3	2:00 min. rest				
Date	Surface	Time	Date	Surface	Time
Set 1	2:00 min. rest	Set 1	2:00 min. rest		
Set 2	2:00 min. rest	Set 2	2:00 min. rest		
		Set 3	2:00 min. rest		
	2:00 min. rest				
Repeat Set 2	2:00 min. rest				





WIDE RECEIVERS SKILL PATTERN RUNNING



WR

3
TERNS
1
8
2
5
9
1
4
7
2
0

- 11. 16 yds. in Rt.
- 12. 16 yds. in Lt.
- 13. Post Rt.
- 14. Post Lt.
- 15. Flag Rt.
- 16. Flag Lt.





- 17. Comeback Rt.
- 18. Comeback Lt.
- 19. Streak Rt.
- 20. Streak Lt.

Run each set of patterns at full speed from your stance and jog back to the starting point after each rep is completed. Get in your position stance and start the next rep. Start the clock when you start your first rep and stop the clock when you finish your last rest of each set. Write down what surface you run on grass or turf.

Date	Surface	Time	Date	Surface	Time
Set 1	3:00 min. rest	Set 1	2:45 min. rest		
Set 2	3:00 min. rest	Set 2	2:45 min. rest		
Date	Surface	Time	Date	Surface	Time
Set 1	2:30 min. rest	Set 1	2:15 min. rest		
Set 2		Set 2	2:15 min. rest		
~ ~ ~		Set 3	2:15 min. rest		
Date	Surface	Time	Date	Surface	Time
Set 1	2:00 min. rest	Set 1	2:00 min. rest		
Set 2	2:00 min. rest	Set 2	2:00 min. rest		
Set 3	2:00 min. rest				
Date	Surface	Time	Date	Surface	Time
Set 1	2:00 min. rest	Set 1	2:00 min. rest		
Set 2	2:00 min. rest	Set 2	2:00 min. rest		
Set 3		Set 3	2:00 min. rest		
-	2:00 min. rest				
Repeat Set 2	2:00 min. rest				









CINCINNATI FOOTBALL SPEED DEVELOPMENT PROGRAM

Note: This program will be taught to you when you report to camp

- I. Speed can be taught.
- II. The mechanics of speed development applied properly will improve speed.
- III. Speed is developed while changing body movements on the run.
- IV. Speed development is not form running.
- V. Speed development is the utilization of a one-word speed vocabulary with reference to body parts.
- VI. Speed Vocabulary: There are a number of key words, which reinforce our training techniques and will help you with on-the-field speed development. Select specific upper or lower body techniques to work on each day. Select no more than two techniques per day. When used on the field they can trigger a physical adjustment in the athlete's running movement.

THE UPPER BODY

- 1. PINCH Serves as a way to control the rotational force of the arm action, which hinders straight ahead speed. The actions of the right arm affect the left leg and the actions of the right hand affect the left foot.
- 2. FOCUS Keep your eyes on the horizontal plane as if conversing with someone your own height. A downward head tilt causes the body to lean due to the weight of the head.
- 3. FIX Maintain an arm angle of 90 degrees.
- 4. ROTATE Swing the arms through the shoulder area. Remember to keep the arms fixed at an angle of 90 degrees.
- 5. LOW The position of the hands. The hands must go through the pocket below the hip and past the butt.
- 6. PULL The hard downward and backward action of the arm, from chest height, through the pocket, below the hip and past the butt.
- 7. LOCKOUT The freeze position of the upper arm occurs with the shoulder down and the hand past the butt.
- 8. CHOKE The forward swing of the hands stopping at the sternum level.





- 9. CRACKDOWN Just like the toes of the foot pointing to the ground in a downward action as the leg goes back while running, we want the hand and knuckles of the hand to "crackdown" at the wrist joint as if you are cracking a whip- to put as much force down into the ground as possible.
- 10. HAMMER Aggressive speed downward. Point your knuckles to the ground and extend your wrist.
- 11. SQUEEZE Keep your arms close in to the torso. Avoid creating space between your arms and upper body.

THE LOWER BODY

- 1. HANG Create and maintain a 90-degree angle at the knee in the recovery phase. Your leg should be inactive from the knee down. Lead with your knee. Keep your foot and foreleg down and under your knee. When the 90-degree angle is lost (foreleg reach), the leg slows up.
- 2. PUNCH Drive your knee out and forward, not up, on your initial movement from the ground. A forward and upward knee action rotates the hips to cover more ground.
- 3. SNAP Pull your foot down and back under the hip in the recovery phase. Any time the foot hits ahead of the hip forward momentum is broken.
- 4. LIFT Run tall as if someone were measuring your height. The lift occurs after the first 10 yards of the 40, in the open field.
- VII. Speed Training Techniques are taught at progressive speeds.
 - A. 1/4 Speed
 - B. 1/2 Speed
 - C. 3/4 Speed
 - D. Full Speed
- VIII. Utilize the Set Principle.
 - A. Initial stages, 2 sets, 5 repetitions, 40 yards
 - B. Increase to 3 sets when the first two sets are run without a drop off in technique or time.
 - C. The maximum goal is 5 repetitions per set, 3 sets per session, running 40 yards at full speed. Full recovery between sets is necessary.
- IX. Train with people of comparable speed.





- X. Quality is more important than quantity.
- XI. Train in speed distances that apply to game situations, 20 to 50 yards.
- XII. When applying speed principles always start off fresh.
- XIII. Select one or two techniques at a time.
- XIV. Speed Stance
 - A. Point Stance
 - B. Distance from back foot to front door = $1 \frac{1}{2}$ feet
 - C. Both feet should be pointing straight
 - D. Place the ground hand directly under shoulder
 - E. Scrape down hand to a lock, do not lift
 - F. Punch toward destination, do not punch up.
 - G. Focus forward with the understanding that the focus of the eyes change, gradually bringing the head up.
 - H. The free arm should be kept high, at a 90-degree angle, the lockout position
 - I. All of the weight should be on the front leg and down hand
 - J. Use the thigh of the front leg as a spring





40 Yard Sprints

One of the most common tests looked at throughout the football community is a player's 40-yard sprint time. Because of this, we break down 40 yards into 3 separate sprints (10, 20, and 40 yards). Here, we are able to work on each individual portion of the test isolating any problems a player might have.

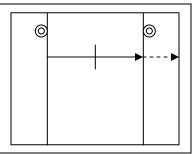
Stance

A sprinters stance: power leg forward, opposite leg back with only 4-6 inches from the heel of the front foot to the big toe of the back foot. Place starting hand (opposite side of power leg) just behind the start line with your other arm in a cocked position (bent 90 degrees with the hand just past the waist) Keep the legs bent with the shoulders just below the hips.



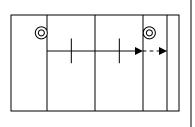
10 Yard Sprint

The purpose behind a ten-yard sprint is to work on exploding out of your starting position. With these sprints, place an emphasis on coming out of your stance in a forward direction and not an upward direction. Also, make each of these first steps "Drive Steps"; this means driving off of each foot with as much power as possible. Try to increase your acceleration with each step. Finish through the yard marker.



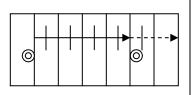
20 Yard Sprint

With the 20 yard sprints, carry over everything from the tenyard sprint. The main difference here will be working on transitioning your explosive start into a full acceleration. As your drive steps begin to end, make sure that the body is still leaning forward slightly. You should not be at an upright position until the end of this sprint. Finish through the yard marker.



40 Yard Sprint

Again, carry over everything you've learned about the first two sprints and apply them here. The main focus here will be to concentrate on full acceleration, and to keep a relaxed and comfortable form. Do not allow the face, jaw, or shoulders to clench during these sprints. Also, try to imagine that you are running a 50 or 60 yard sprint; accelerate for as long as possible finishing through the 40 yard marker at your top speed.







INTERVAL TESTING

The Interval Test will be administered upon reporting to camp. The purpose of the test is to evaluate your anaerobic endurance, first ten intervals; that is your ability to sustain next to maximal effort for a series of repeated sprints without a significant drop in performance. Failure to pass the test will result in being held out of camp until you can pass it!

THE TEST

• The interval test is run on the football field going from sideline to sideline.

Intervals	Intervals are a sprint that covers the width of the field two times. From the starting line, run to the opposite side of the field, touching the line with your hand, and sprinting back. Allow 35 seconds rest before beginning another interval.	
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AGILITY DRILLS

Bag Drills - bag drills are a useful device when working on foot speed and quickness. The bags used are 1x1x3 and are placed between 18 and 24 inches apart. Each line should have a total of 6 bags with a starting cone set 5 yards before the first bag and a finish cone set 5 yards away from the last bag. Some examples of drills used are:

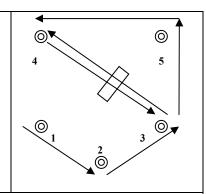
mot oug und u	inst bag and a missi cone set 5 yards away from the last bag. Some examples of drifts used are.				
DRILL	DESCRIPTION	EXAMPLE			
Single Leg High Knees	Sprint to the first bag. By using an exaggerated stride, step directly over the bag placing one foot in between each bag. Make sure to raise your knee high enough so that your foot travels over the bag and not around it. Always keep a good, upright position. After reaching the last bag sprint through the finish line.	1 foot 1 foot			
Double Leg Chop	Sprint to the first bag. Step directly over the bag making sure to stutter- step with both feet before moving to the next bag. Keep yourself in a good upright position while focusing on quickness with your feet. Sprint through the finish after the last bag.	both feet both feet			
<u>Lateral</u> <u>High Knee</u>	Sprint to the first bag. When you reach the first bag, quarter pivot to the left. Step over the bag laterally (keeping your shoulders square) with your right foot by raising the knee to the front and stepping out to the side. Follow with the left foot bringing both feet together. After finishing the last bag, turn and sprint through the finish. Repeat in the opposite direction.	both feet both feet			
<u>In & Out</u> <u>Drill</u>	Starting with the first bag to your right and your toes at the front edge of the bag, back peddle to the rear of the bag keeping the shoulders square and hips low. Once reaching the end of the bag, move laterally to the next bag and sprint forward. Keep moving in an S fashion until reaching the final bag. At the last bag, turn and sprint. Repeat the in opposite direction.				
"Cadillac"	Starting with the first bag to your right and your toes at the edge of the bag. Move to your right by performing a Lateral High Knee keeping the shoulders square. Once you reach the third bag, allow only your right foot to travel over the bag. Once your right foot hits the ground, plant, push off, and begin moving back to your left. Continue the Lateral High Knee (now moving to the left) until reaching the first bag. At the first bag, allow only your left foot to travel over the bag. Once your left foot hits the ground, plant, push off, and begin moving back to your right. Continue again until reaching the third bag. Once you reach the third bag, allow only your right foot to travel over the bag. Once your right foot hits the ground, plant, push off in a slightly forward direction so that the bags will be out of your path. Sprint back to your starting cone. Repeat in the opposite direction.				





40 yd.
Directional
Change
Drill

You will need 5 cones and a hurdle for this drill. Place cones 1 & 3 0n the goal line 7yds. apart. Place cones 4 & 5 on the 5-yard line, 7yds. apart. Place cone 2 in between cones 1 & 3, but 2yds. behind the goal line. From cone 1, open the hips and sprint around cone 2 to cone 3. From cone 3 make a hard cut left heading towards cone 4, hurdle the bag in your path. Touch cone 4 with your hand and immediately change direction back toward cone 3; again, hurdle the bag in your path. Once reaching cone 3 cut hard to the left and sprint toward cone 5. At cone 5, make another hard cut to the left sprinting through the finish at cone 4. Set up another drill that mirrors the example, and repeat in the opposite direction.



Cone Drills — cone drills are an excellent way to work on speed and change of direction. These drills can be performed anywhere, however, they will be most effective on the football field. This will ensure that you are familiar with the playing surface of real life game situations, and will help you execute the drills more specifically and effectively.

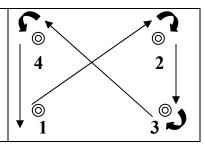
the paying surface of real the game strainfold, and will help you execute the arms more specimently and effectively.				
DRILL	DESCRIPTION	EXAMPLE		
Shuttle Drill	Place 4 cones 5 yards apart with cone 1 being your starting point. In progression, sprint to and from each of the cones without stopping. Make sure to touch each line with your hand. After reaching the fourth cone, finish with a sprint through cone 1.	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		
Zig Zag Drill	Place 7-10 cones in a slalom formation leaving roughly 12 yards in between each one. From the starting cone, sprint to the first cone. Upon reaching the first cone, plant with the outside foot and turn toward the second. Continue until finishing through the last cone.			
NFL 3 Cone Drill	Place 3 cones, 10 yards apart in an L shape. Start at cone 1 with the cone just to your right. Sprint to and from cone 2, touching the line. Next, sprint to and circle cone 2. Keeping the cone on your right side sprint toward the right side of cone 3. Circle around cone three heading directly toward the right side of cone 2. Upon reaching cone two, pivot to the left and sprint through the finish. Repeat on the opposite side.			
20 Yard Shuttle	Place 2 cones 10 yards apart with a midline directly in between them. Starting on the midline, in a three point stance, sprint to the right touching the line (cone 1) with your right hand. Immediately turn and sprint toward the opposite line (cone 2) touching that line with your left hand. Again, immediately turn and sprint through the finish line (midline). Repeat in the opposite direction.			







Place these cones in a 10 yd X 15 yd rectangle. Front the starting point (cone 1) sprint diagonally to the outside of cone 2. Plant the outside foot, turn right, and sprint toward the outside of cone 3. Again, plant the outside foot, turn right, and sprint toward the right side of cone 4. Plant, turn to the left and sprint through the starting point (cone 1). Repeat this exercise in the opposite direction by starting at cone 3.



3 and 4 Cone Drills- There are a number of 3 and 4 cone drills used here at the University of Cincinnati. Rather than list them all for you, we will give you a few examples. All of which, though, are used for speed and agility training. Make sure, no matter what drill you use, that you train at the highest intensity possible.

	·	
DRILL	DESCRIPTION	EXAMPLE
3 Cone Drills	These drills will help you with acceleration and change of direction. Set these cones up roughly 10-15 yards apart. Examples of drills used are: Sprint/Sprint/Sprint Back Peddle/Sprint Sprint/Sprint/Back Peddle Shuffle/Shuffle/Back Peddle Sprint/Back Peddle/Sprint Sprint/Back Peddle/Sprint Sprint/Shuffle/ Back Peddle	© 1 3 © 1
4 Cone Drills	Remember to always finish through the starting point. These drills will help you with acceleration and change of direction. Set these cones up roughly 10-15 yards apart. Examples of drills used are: Sprint/Shuffle/Back Peddle/Shuffle Sprint/Carioca/Back Peddle/Carioca Sprint/Sprint/Shuffle/Back Peddle Shuffle/Sprint/Sprint/Back Peddle Shuffle/Carioca/Shuffle/Carioca Remember to always finish through the starting point.	





Dot drills- dot drills are another exercise that we use to help with foot speed. These dots are usually on pre-made mats, however, you can make your own dots with pieces of tape. Place the tape marks in a 2'x2' X design with one dot directly in the center.

Dot Drills	Drills used are:		
	1 Foot Drills	2 Foot Drills	3 4
	1,2,3,2,1	(1,5),2,(3,4),2,(1,5)	
	5,2,4,2,5	5,2,1,2,5	
	1,2,5,2,1	1,2,4,3,2,5	
	5,2,1,2,5		$lue{}_2$
	1,2,4,2,5		
	5,2,3,2,1		
			1 5

Line Drills- Line drills are yet another form of foot speed maneuver. These can be performed over any line on a hard surface.				
Line Drills	These drills can be performed with either one or both feet. The focus of these drills is on the quickness of the feet. Jumping back and forth, try to move as quickly as possible.	•		





SUMMER RUNNING PROGRAM

Follow the running calendar that has been included in this manual. For maximum benefits adhere to the following:

- 1. The conditioning test will be performed the first day of practice. Read and understand the description. You will be required to pass it. *Failure will result in being held out of camp until you pass it!*
- 2. Perform *the entire* running on the calendar. If you perform all of the running at the proper intensity, we guarantee you will pass the test.
- 3. Review the outline of our speed development program. Realize that fatigue should *not* be a factor when training for speed. Maximum speed and explosion, after the warm-up, with complete recovery between efforts, should dictate the tempo of the workout
- 4. Fatigue *should be* a factor during our conditioning workouts. We condition hard all year round! Keep any extra speed-development workouts that you wish to perform separate from our scheduled conditioning workouts.
- 5. To those players out of town: Realize that your teammates in Cincinnati are training at a much higher level of intensity. Match it.

RUNNING WORKOUTS

GUIDELINES TO FOLLOW FOR INTERVAL TESTING:

- Warm up (see warm up/ flexibility section)
- Progressive starts if completing a sprint workout.
- Complete the assigned running
- Cool down and stretch

INTERVALS	1rst	Rest	2 nd	Rest
	10		10	
OL/DL	20	:35	21	:45
TE/FB/LB/K	18	:35	19	:45
DB/WR/TB/QB	16	:35	17	:45





ANAEROBIC CONDITIONING

Your anaerobic condition is your ability to perform at a rate faster than can be met by incoming oxygen. If you are in good condition and are exercising or playing below a certain level of intensity, your energy requirements can be met by your aerobic system. When you pick up the pace to defeat your opponent and your body cannot meet the immediate demands for more energy with the available oxygen, your body must get its energy from the anaerobic systems. At this point you are in "oxygen debt" which will be "paid back" later.

PHYSIOLOGY

In order for movement to occur, your muscles require energy. This energy takes the form of chemical bonds called ATP. Your body has three different ways it can generate ATP.

- 1. The *aerobic system* produces ATP by burning sugar in the presence of oxygen (aerobically).
- 2. This is the most efficient way to produce ATP and the method preferred by the body.
- 3. The lactic acid system provides ATP when you burn sugar without oxygen present (anaerobically).
- 4. The lactic acid system produces less ATP than the aerobic system and causes the production of large amounts of lactic acid.

Note: If all of this seems a little confusing, just remember the following:

- Your body uses three different energy systems to replenish ATP.
- There is overlap among the three systems.
- Training your anaerobic system allows you to perform with great effort for short duration.
- Training your aerobic system allows you to perform tasks of long duration. It also allows you to recover quickly from anaerobic exercise.
- The energy systems must be trained near their maximum for best results.

PHYSIOLOGICAL ADAPTATIONS

As your conditioning level improves, you will find that you will have to work harder and faster to make progress. You may initially be able to run six intervals sprints in the prescribed time. Several weeks later you may be able to run them in 81 to 84 seconds each.

- 1. Your recovery time will shorten as your ability to clear lactic acid improves.
- 2. Other physiological adaptations include increases in strength, resting levels of ATP, phosphocreatine, free creatine, and glycogen.





3. Improvements also occur in anaerobic enzyme function, capacity for high levels of lactic acid, and pain tolerance.

INTERVAL TRAINING

Since football is a game that is played not only in short distances, but long distances as well, we do incorporate some longer yardage sprints into our conditioning program. These sprints will help keep up your cardiovascular endurance, allowing you to perform at a higher level throughout the entire game.

The demands of anaerobic conditioning are best met by interval training. Because of the high intensity nature of this type of exercise, it can only be continued for short periods of time that must be followed by intervals of rest. Interval training is systematic manipulation of the work and rest intervals to ensure over load and progression.

When training large groups of people, it is convenient to keep the rest period the same and try to increase the speed at which the interval sprints are ran. An athlete interval training should use 35 seconds as the constant rest period between each sprint. The time of each sprint should be recorded and compared to previous workouts. The first week of training you may find yourself running 6 intervals in the prescribed time. The next week you may have improved to 7 intervals within the prescribed time.

It is best to walk around while resting between sprints that emphasize the lactic acid system, as this helps facilitate recovery. When training the ATP-PC system, it is best to just rest during the rest interval.

SPECIFICITY OF CONDITIONING

The best way to condition for your sport is to play your sport. The closer your conditioning comes to simulating the demands of the game, the greater the conditioning carryover to your sport will be. Therefore runners must run, swimmers must swim, and rowers must row. Basketball players should perform conditioning drills that simulate the game, etc. But just as I would not recommend that a football player play football year round to stay in shape, I would not recommend that an athlete run or sprint year round either. For this reason, parts of the year are designated as a time to train the "aerobic base." Allowing the athlete to get or stay in shape without placing the physical or emotional stress of spring conditioning on the athlete year round. Further more the three energy systems overlap considerably and compliment each other. Improving one will never hurt the other, and will probably help. As the season comes closer to hand, the conditioning drills will become more specific in nature.

SAMPLE EMPHASIZING THE LACTIC ACID SYSTEM





The ability to tolerate and recover from large amounts of lactic acid is best met by running sprints that take about 30 to 90 seconds to complete. Run each sprint as hard as possible. Your heart rate should be about 180 BPM at the end of each sprint. This is an excellent method of bridging the gap between distance running and sprint conditioning.

LACTIC ACID INTERVAL PROGRAM

On day 1 use a work/rest ratio of 1:2. On day 2 keep the rest interval the same and try to improve your average time.

Workout	<u>Intervals</u>
Week 1	8 x Interval (rest :35)
Week 2	9 x Interval(rest :35)
Week 3	10 x Interval (rest :35)
Week 4	11 x Interval (rest :35)

A SAMPLE OF OTHER RUNNING PROGRAMS

The ability to sprint fast and to sprint fast repeatedly is best met by interval sprint conditioning. Each sprint must be run as hard as possible. Running hard is the only way to get faster, get in shape, and prevent injuries. When completing sprint conditioning we use a "set and repetition" approach. After running a series of "repetitions" with a short rest period, we will take a longer break before starting the next "set" of repetitions. The short rest between individual sprints provides conditioning while the longer rest between sets allows enough recovery to clear the lactic acid and keep the running speed fast.

SPRINT CONDITIONING INTERVAL PROGRAM

WEEK	TUESDAY	THURSDAY	SATURDAY
1	Set #1 4 x 40 yd (15 sec. rest)	Set #1 3 x 200 yd (45 sec. rest)	Set #1 5 x 40 yd (15 sec. rest)
	1 minute rest	3 minutes rest	1 minute rest
	Set #2 4 x 40 yd (15 sec. rest)	Set #2 5 x 40 yd (15 sec. rest)	Set #2 5 x 40 yd (15 sec. rest)
	1 minutes rest	1 minute rest	3 minutes rest
	Set #3 4 x 40 yd (15 sec .rest)	Set #3 5 x 40 yd (15 sec. rest)	Set #3 5x 40 yd (15 sec. rest)
		3 minutes rest	1 minute rest
		Set #4 5 x 40 yd (15 sec. rest)	Set #4 5 x 40 yd (15 sec. rest)





Drill	Description	Example
Intervals & Half intervals	Intervals are a sprint that covers the width of the field two times. From the starting line, run to the opposite side of the field, touching the line with your foot, and sprinting back. Allow 35 seconds rest before beginning another sprint. Half Intervals are only down and back one time with 40 seconds rest.	
Ladders (80 yds & down)	Ladders are usually performed from 80 yds. and down. These are full speed sprints starting with four 80-yard sprints with roughly 30 seconds rest in between. Once all of the groups (skill, big skill, and linemen) have finished, a two-minute rest is given before the 60-yard sprints start. Again each group runs four of these sprints with the same rest periods. Next are the six 40-yard sprints with 15-second breaks ending with another 2-minute rest. After that, begins the six 20 yard sprints with a 15 second break in between, ending with a 1 minute rest. Finishing lastly with the eight 10 yard sprints with no actual break between each sprint, however, you do rest until the other two groups are able to run their sprints.	
Wind Sprints	These are progressive sprints (½ speed, ¾ speed, full speed, ¾ speed, ½ speed) of 100 yards. Starting on the goal line, begin with a half speed sprint until about the 20-yard line. There, increase your speed to a ¾ sprint. At roughly the 40-yard line begin a full speed sprint until you reach the far 40-yard line. Bring your speed back down to ¾ until reaching the 20-yard line. At that point, finish through the goal line at a half speed sprint. Allow 30 seconds rest in between sprints.	
"Fartlek"	These are simple 110-yard sprints that use the width of the field as the rest time. Start at the corner of the end zone (where both boundary markers meet). From there, sprint to the far corner of the opposite end zone. From there, walk the width of the field to the next corner. Sprint the length of the field again stopping at the corner of the end zone. Walk back to the starting point.	sprint w a 1 k sprint
300 Yard Shuttle	This is a shuttle run that covers the length of the field 3 times. From the goal line, sprint to the opposite goal line, back, and down again. Allow 90 seconds before performing another sprint.	





AEROBIC CONDITIONING

Simply put, your aerobic condition is your ability to take in, deliver, and use oxygen over prolonged periods of time. Improvement in aerobic condition occurs when your body is exposed to a prolonged increase in oxygen uptake and metabolism. You must maintain a certain level of intensity in order to stimulate the body. Once improvements have occurred, the work must be made progressively harder to achieve maximal gains. Therefore the name of the game is overload and progression.

You can use your heart rate, measured in beats per minute (BPM), as a guide to judge the intensity of your effort. Each person has a specific maximum heart rate (MHR) that can be attained in a sustained maximum level of intensity. Many factors may affect your maximum heart rate; these may include genetics, age, and conditioning level. Maximum heart rate is difficult to measure without sophisticated equipment but it can be estimated by this simple formula.

Maximum Heart Rate = 220 - Your Age

Therefore a twenty year old would estimate their MHR to be 200 BPM. In order to stimulate an aerobic conditioning effect, research has indicated that you must keep your heart rate elevated at approximately 65 - 90% of your MHR for 20 - 30 minutes. For a twenty year old that would range between 130 - 180 BPM. As with all modes of training, the greatest results are achieved with very intense workouts.

In order to find your MHR you must learn to take your pulse. If you place your fingertips on your Adam's apple and then slide them about an inch to either side you should feel a pulse. Using a watch, begin counting the beats for 15 seconds. Take the number that you counted and multiply that by 4 to give you the number of beats that your heart is beating each minute. This is the number that must fall into that 65 - 90% range.

As your body begins to adapt, you will discover that you must exercise harder and faster than before in order to maintain your heart rate at the same level that it was in your initial workouts. You will also discover that it takes your body less time to recover from your workouts. Cardiovascular conditioning is important due to the fact that it increases the strength of the heart. Thus increasing stroke volume, cardiac output, respiratory function, heat tolerance, and lactic acid metabolism. In other words you get in shape.

As you may have guessed your heart and lungs have no idea what type of stimulus is creating the stress. It may be biking, running, swimming, or stepping. You can take advantage of this by incorporating a variety of modalities into your cardio workouts. Doing so will enable you to minimize the potential for overtraining types of injury. All you need to worry about is working hard enough for your heart to reach its prescribed level in a systematically progressive way to force improvement to occur.





A cardiovascular program can be performed 2 - 5 days per week, depending on practice demands. You should always keep accurate records of your workouts and try to improve each session. For example, if you run 3 miles in 20 minutes then you must improve your next workout. Try to run 3 miles in less time or run a longer distance in that 20-minute period. You must have an unremitting desire to improve. Remember that there are those athletes that want to improve and there are those athletes that do.

BASIC AEROBIC WORKOUT CARD

MACHINE	DATE	DATE	DATE	DATE	DATE
Wind Racer Bike	5/02	5/05			
Program	4	4			
Level	76	76			
Minutes	20	20			
Miles	12.6	13			
Cross Trainer					
Program					
Level					
Minutes					
Miles					
Stair Master Stepper					
Program					
Level					
Minutes					
Floors					
Quinton Treadmill					
Speed					
Grade					
Minutes					
Miles					
Life-Stepper					
Program					
Level					
Minutes					
Floors					



BEARCAT SPRINT SEQUENCE



SPRINT SEQUENCE 60/80/100 YARD SPRINTS		
SPRINT	RELIEF PER SET	REST BEFORE NEXT SET
60's	20-25 seconds	2.5 minutes
80's	30-35 seconds	3 minutes
100's	35-40 seconds	3.5 minutes

SPRINT SEQUENCE 40/60/80 YARD SPRINTS		
SPRINT	RELIEF PER SET	REST BEFORE NEXT SET
40's	20-25 seconds	2 minutes
60's	25-30 seconds	2.5 minutes
80's	30-35 seconds	3 minutes

SPRINT SEQUENCE 20/40/60 YARD SPRINTS		
SPRINT	RELIEF PER SET	REST BEFORE NEXT SET
20's	15-20 seconds	1.5 minutes
40's	20-25 seconds	2 minutes
60's	25-30 seconds	2.5 minutes

SPRINT SEQUENCE 10/20/40 YARD SPRINTS		
SPRINT	RELIEF PER SET	REST BEFORE NEXT SET
10's	10-15 seconds	1 minute
20's	15-20 seconds	1.5 minutes
40's	20-25 seconds	2 minutes





CINCINNATI BEARCAT STRENGTH TRAINING

The immediate purpose of strength training is to fatigue your muscles. Take a moment and think about this idea. Now relate the implications to the manners in which you train. A clear understanding of this point simplifies the evaluation process of different exercises, equipment, and programs. The best methods of strength training are those that produce the greatest amount of fatigue, in the shortest amount of time, in the safest manners possible.

The following is an outline of the five principles of high intensity training. These are the pillars of our strength-training program and must be adhered to in order to maximize your gains.

- 1) You must perform each exercise through its full range of motion.
- 2) You must eliminate momentum at all times. Use you muscles to raise and lower the weight. Eliminate all bouncing, arching, throwing, and jerking while raising the weight.
- 3) Emphasize the negative phase of the lift. Lower the weight in a slow and controlled manner. Do not drop the weight. The muscles that are used to raise the weight are the same muscles used to lower the weight. You can lower approximately forty percent more weight then you can lift.
- 4) Lift until you reach the point of momentary muscle fatigue. This occurs when you can no longer properly lift another repetition. Each set of every exercise must be performed with an all out effort until momentary muscle fatigue is reached.
- 5) Always lift with a partner. This will ensure that every repetition of every exercise is supervised to guarantee proper execution. This will also reduce the occurrence of injury.

To strength train in the most efficient manners possible you need to be aware of four coaching points. First and foremost you must minimize the momentum of each and every repetition. Second, you must always pause in the contracted position. Next you must always emphasize the negative phase of the lift. Finally, you must always be aware of your body position and leverage points as to maintain constant tension on your muscles. Each of these points will be elaborated on in the following sections.

MINIMIZE MOMENTUM

If you move a weight too quickly it will increase in speed and actually travel on its own. This increase in momentum will actually reduce the amount of tension that is placed on your muscles, thus making the exercise easier as well as more dangerous. According to the principle of muscle fiber recruitment it is the intent to raise the weight fast that is the key to developing explosive power. In fact, if the weight that you are lifting can be raised in an explosive manner then you are not using enough weight. By minimizing momentum you can ensure safety and reduce the risk of injury on your joints.

PAUSE IN THE POSITION OF FULL MUSCLE CONTRACTION

Once you have raised the weight you should always pause when your muscles are in the contracted position. This serves two purposes. First it acts as a mechanism to pre-fatigue your muscles, requiring them to recruit





more muscle fiber to complete each additional repetition. Second, it helps to reduce the amount of momentum that is used to raise and lower the weight.

EMPHASIZE THE LOWERING PHASE OF THE LIFT

Because you can lower forty percent more weight then you can lift you will use less muscle fiber unless you allow more time to lower the weight or add more weight during the lowering phase. A good rule is that you should take four seconds to lower the weight of each and every repetition. Lowering the weight any faster would be dropping it and may increase your chances of getting injured.

Use the leg extension for an example. The exercise should start slowly and smoothly. The weight should be raised at a speed so that the quadriceps is under constant tension throughout the entire range of the movement. At full extension the athlete should pause for a moment. If the weight stack floats, recoils, or travels on its own past the point of the momentary pause then the weight was lifted too fast. After pausing in the contracted position the athlete should slowly release the tension on his or her muscles until the weight slowly lowers at a constant speed. If the weight begins to accelerate while being lowered then the weight is being lowered too fast. When in doubt, lift and lower the weight slower, not faster.

BODY POSITION AND LEVERAGE POINTS TO MAINTAIN TENSION

Proper body position must be maintained to execute safe and effective training. By arching the back or rolling the hips many exercises can be performed in an easier, however, less effective manner. Adjusting your leverage on many exercises will make the exercise easier. On the other hand it will also reduce the amount of tension that you maintain on your muscles. Lifting heavier weight for the sake of lifting more weight, without any regard for how it is lifted, may build the ego but it will not strengthen your muscles.

When performing an exercise you should always force your muscles to work through a full range of motion. By doing so you are ensuring that your muscles are moving the workload. This creates constant tension on your muscles and ensures that you will stimulate maximum muscle growth. Realize that your muscles do not care if you are moving weights up or down. All that your muscles care about is how hard they are being forced to work. The immediate results of properly performed repetitions should be greatly fatigued muscles.

THE IMPORTANCE OF PROGRESSION

The most important component of successful strength training is an unremitting desire to progress. Players and coaches may become frustrated by the lack of gains that their programs deliver. This may lead to the search for magical solutions, supplements, and new exercises and equipment. Their program may be modified, perhaps adjusting the set and repetition scheme, exercises, or speed movement. After another period of unsatisfactory results, new gurus will be consulted and their program may be changed again. All the while, the answer to their problem is too simple to be seen.

Reality is something different. The body changes by a force of will. To be productive, strength training must be difficult and progressive. Try to increase either your weight or repetitions each workout. This is called the double progressive method of overload and it is the most effective way for you to improve.





An athlete that can improve one repetition each workout will experience phenomenal gains. For example, let us pretend that we are doing strict leg curls in the eight to twelve repetition range three days per week (Monday, Wednesday, Friday). When we have successfully completed twelve repetitions we will increase the weight by a small amount.

Week One: Monday = 60 lbs. for 8 reps

Wednesday = 60 lbs. for 10 reps Friday = 60 lbs. for 12 reps

Week Two: Monday = 65 lbs. for 8 reps

Wednesday = 65 lbs. for 10 reps Friday = 65 lbs. for 12 reps

Week Three: Monday = 70 lbs. for 8 reps

Wednesday = 70 lbs. for 10 reps Friday = 70 lbs. for 12 reps

At first is does not seem like much is happening here, however, lets take a closer look. If you are training three times a week, that is equivalent to 156 workouts per year. If you increase five pounds every four workouts that is equivalent to 195 pounds per year. Not bad. Is this possible?

We have never seen an athlete who could increase a repetition or two every workout, but there will be times that your progress will amaze both you and your coach. For the more experienced athlete it can be frustrating training for weeks to only increase one repetition. However, if you only increase one repetition every three weeks that is twenty-five pounds per year, which is not bad by any means.

Demand improvement from yourself every time you train. Refuse to replicate previous results. In the short run you are trying to add repetitions. In the long run you are trying to add weight. Small increases over time will get you where you are trying to go. Do not look for magic. Ultimately, you will determine your results, not the program, not the coach, and not the equipment. Look to yourself, your motivation, and your effort for the answers.

INTENSITY & TIME

Training below a certain level of intensity will not produce any results. If you are capable of lifting two hundred pounds for eight reps and you stop at seven, it should be obvious that the exercise was not as productive as it could have been. The one thing that separates strength training from other modes of exercise is that it is much harder to do. The dramatic changes that occur in the body as a result of lifting weights are due to the intense nature of the exercise. There is simply no other mode of exercise that works the muscles as hard.

Beyond what is needed to complete daily tasks, the body does not want to maintain a large degree of muscle. Muscle tissue is metabolically demanding you must feed it to keep it alive. Of all of the things that your body does to survive, conserving energy is number one. In the cave man days carrying an extra thirty





pounds of muscle was of no advantage when the famine came. For this reason, to get stronger and more muscular, you must give your body a good reason to do so.

You must place your muscle in a critical situation. Maximum intensity levels must be attained. Your brain will only recruit the minimum number of muscle fibers necessary to complete the job. This is why you must complete as many repetitions as possible. As many as possible is a confusing point for many young players. Some think that exercise is uncomfortable when they have done as much as they can. Or they may think that twelve reps are all that they can do. Let's set the standard right now. When you think you have done as many reps as you can, try to get another. If you can't get a full rep then try for a half rep. When you cannot move the weight a fraction of an inch more, you have finished a proper set.

Don't make the mistake of thinking that you can make up for a low level of intensity by doing more work. When given enough time, any muscle, regardless of size, can perform some amount of work. This is called labor and has nothing to do with strength training. As fatigue sets in you're gradually recruiting more fibers. If your training consists of a few heavy reps or halting short of fatigue you will be recruiting muscle fibers during your activity that were not strengthened in the weight room.

Muscles respond to tension over time. You can get stronger performing large amounts of volume. However, performing only a few heavy reps is very dangerous and not specific to the needs of our athletes. The competitive weightlifter has needs that are specific to his or her sport, while the college athlete has needs specific to his or her sport. The longer tension is applied to the muscles, the more fibers can be activated. Research, as well as, our experience has shown that the best results occur from training the muscles to fatigue within in the anaerobic time frame of thirty to ninety seconds. Assuming about five to six seconds per rep this would set a standard rep range from eight to twenty reps. Each individual will respond better to certain reps ranges as opposed to others. This is dependant on such factors as neuromuscular efficiency, muscle fiber type, and lever length. We will usually try to find a weight that you can perform for eight to twelve reps, although this can change based on individual needs.

There has been a lot written about set and rep schemes without anyone really defining what is really being discussed. When discussing the set and rep schemes individuals are really referring to the amount of time used to fatigue the muscles. If someone states that five sets of five reps is the best set/rep scheme, are they really saying that the best way to work the muscle is with two and a half minutes of work broken up into thirty-second intervals? The fact of the matter is that muscles do not keep track of reps. The majority of the research has indicated that one to three all out sets are equally effective. An athlete can spend thirty minutes or two hours in the weight room and accomplish the same amount of work. But as the intensity of the work increases, the volume must decrease proportionately.

For instance, if you were to walk two miles an hour, you could continue that pace indefinitely. However, if you were to increase to four miles an hour, you would be able to maintain that pace for only eight to ten miles. Try exercising at eight miles an hour and you would be lucky if you could cover two miles. I think you get the point.

The amount of time that you take between exercises will affect how much weight you can lift. If one athlete decreases his or her rest period between sets he or she will find that they will not be able to use as much weight. If another athlete increases the amount of rest between his or her sets he or she will be able to lift more. However what you may not realize is that the first athlete will be in better shape then the second athlete do to the physiological adaptations that occur. Decreasing the amount of time that it takes to





complete a workout is an excellent way to increase the intensity of the workout. It is also a great way to enhance your metabolic energy systems and thus get you in better shape.

As a Bearcat, you will be expected to take all sets to momentary muscle fatigue. Our workouts are brief by necessity. We ask a lot of our athletes, probably more than you can tolerate. Inexperienced athletes who question the effectiveness of this philosophy have never experienced a properly supervised workout. The name of the game is effort, and as a member of the Bearcat family you will be expected to train as hard as possible. Strength training is similar to every thing else in your life. You only get out of it what you put into it.

PROGRAM ORGANIZATION

To simplify our discussion of how we organize each workout, we classify them in different body segments. These segments are:

NECK	Flexors Extensors Lateral Flexors Traps
UPPER BODY	Pectorals Deltoids Upper Back
ARM	Biceps Triceps Forearms

LOWER BODY HIPS	Glutes Quadriceps Hamstrings Abductors Adductors
LOWER LEG	Calves Ankle
MID-SECTION	Abdominal Lower Back

KEY POINTS

Record all your workouts. Your records should include the day, exercises, order of exercises performed, amount of weight, number of properly performed repetitions and tool used.

Use the heaviest possible weight for the particular number of repetitions required with the best possible form.

Perform exercises by body segment. Once you begin Hips and Legs, perform all of the exercises for the Hips and Legs

Do your Neck either first or between Upper and Lower Body segments. Your Neck is important. Do not neglect it.

Supervision. A training partner provides encouragement and competition. A training partner can provide negative resistance once you can no longer raise the weight.





MULTIPLE SET ADAPTATIONS

At one time we believed that the number of sets that were completed would determine the strength gain. We have since learned that an athlete can do one set or ten sets and get stronger. He can also do one set or ten sets *and* not get stronger. The determining factor is the intensity level he performs the set at.

Some of our athletes enjoy multiple sets. For those that want to do more than one set, the same rules apply. Perform ten sets if you must, but do not change the intensity of the exercise or the way that the repetition is performed. Record the amount of weight that is used and the number of repetitions that are properly performed for <u>each</u> set. Add weight whenever possible. Do not pace yourself by holding back and saving energy for the next set. Do not decrease the intensity of an exercise when more than one set is performed. Sub-maximal efforts will produce sum-maximal gains in strength. Listed below are examples of effective techniques when more than one set is performed.

Productive Multiple Set Technique #1

Set #1 - 8 repetitions @ 65% of max

Set # 2 - 6 repetitions @ 75% of max

Set # 3 - 4 repetitions (a) 80% of max

Productive Multiple Set Technique #2

Set #1 - 12 repetitions @ 50% of max

Set #2 - 12 repetitions a 50% of max

Set #3 - 10 repetitions @ 55% of max

After you have warmed up, use the described % so you can properly handle each set. The *quality* of each set performed dictates the results, not the number of sets performed.

One set that is properly performed is all that is needed to stimulate maximum gains in size, strength, mass, power, speed, explosion, and any other physical attribute dependent on strength. If you must perform additional sets do not sacrifice the quality of your exercise. If multiple sets are performed, you must decrease the number of exercises in any given workout. The body cannot recover from a large amount of high intensity exercise.

For variety, we have many different pyramid routines using different pieces of equipment. We use a prescribed percentage of max, increasing the weight for each set. We use 90-120 second intervals for rest between sets.







As a general rule, we don't perform multiple sets with pulling movements. With high intensity exercise, the smaller muscles of the hands, forearms, and biceps become exhausted preventing any additional productive work for the large upper back muscles. We also limit signal joint isolation movements in our multiple set routines to prevent the workout form becoming too long and diluted.

Some common exercises we use pyramid set routines are:

<u>Upper Body</u> <u>Lower Body</u>

Bench Press Squat
Incline Press Yoke Squat
Push Press Leg Press

D.B. Shoulder Press Various Deadlift D.B. Bench Machine Squat

D.B. Incline
Machine Shoulder Press

We use many different multiple set routines throughout our program. These reps range from 2-12 repetitions and 2-4 sets performed.

Percentages of max and repetitions are as follows:

12 repetitions @ 50% of max

10 repetitions @ 55% of max

8 repetitions @ 65% of max

6 repetitions @ 75% of max

5 repetitions @ 77% of max

4 repetitions @ 80% of max

3 repetitions @ 85% of max

2 repetitions @ 90% of max

To calculate your 1 rep max we use a projected formula (see our projected max sheet at the end of our strength section). We never test a 1 rep max due to increase risk of injury and quality of form with the exercise.





UPPER BODY ROUTINES

A well-equipped facility will allow for total body development. A balanced and properly organized strength program must include a wide range of exercises. Equipment designed to develop specific areas of the body is needed. Barbells, dumbbells, or machines can be used. In our standard upper body routines we perform six to twelve exercises. Only one to three exercises are performed in a multiple set routine. The quality of our multiple set routines is the same as our standard routines.

We have a "no-hands" routine, which uses equipment that does not need to be held in case of hand, wrist, or elbow injuries. We have a "fried shoulder" routine, which emphasizes the shoulder girdle. We also create variety by utilizing "no card routines." Some of the ways in which a workout may vary include changing the order of the exercises, the cadence of the lift, or eliminating the lifting portion of an exercise and only performing the negative. Variety is used to motivate and reward consistent training and effort.

Push – Pull Routine

Free Weight Bench Press Pulldown Free Weight Shoulder Press Seated Row Lateral Raise Free Weight Incline Press Rotator Cuff

"No Hands"

Chest Fly Pullover Lateral Raise Rear Delt Front Raise Rotator Cuff Incline Fly

"Fried Shoulders"

Military Press Shrug Rear Delt Front Raise Rotator Cuff Upright Row Machine Shoulder Press

Push Routine

Machine Shoulder Press Rear Delt Machine Incline Press Behind the Neck Pulldown Machine Decline Press Upright Row Dips

8-6-4 Free Weight

Free Weight Bench 8 Free Weight Bench 6 Free Weight Bench 4 Machine High Row Free Weight Incline Press 8 Free Weight Incline Press 6 Free Weight Incline Press 4 Machine Rear Delt Free Weight Military Press 8 Free Weight Military Press 6 Free Weight Military Press 4

Pre-Exhaust Routine

Chest Fly Chest Fly Pullover Pulldown Lateral Raise **Shoulder Press** Rotator cuff

8-6-4 Dumbbell

Dumbbell Incline Press 6 **Dumbbell Incline Press 4** Dumbbell Row **Dumbbell Shoulder Press 8** Dumbbell Shoulder Press 6 **Dumbbell Shoulder Press 4** Behind the Neck Pulldown **Dumbbell Incline Press 8** Dumbbell Incline Press 6 **Dumbbell Incline Press 4**

Dumbbell Incline Press 8





LOWER BODY ROUTINES

We will choose from several multi-joint, squatting motion exercises in our facility. We have found through many years of experience that different body types and orthopedic considerations do not allow for one type of movement to fit all of our athletes. No one exercise will work for every player. No one exercise is vastly superior to another. An athlete must be able to perform each exercise in a safe manner with maximum intensity.

Multi-Joint Squatting Motions

Barbell Squat
Yoke Squat
Squat Machine
Dead Lift
Leg Press
Iso-Lateral One Limb Leg Press

<u>Isolation Exercises – Knee</u>

Leg Curl Machine – Various Leg Curl Machine – Iso Lateral One Leg Leg Extension machine – Various Leg Extension – Iso Lateral One Leg

Isolation Exercises – Hip

Buttocks – Stiff Leg Dead Lift, Hip and Back, Abductor Machine Hip Flexors – Hip Flexion Groin – Adductor Machine

Isolation Exercises – Ankle

Gastrocnemius – Straight Legged Calf Raise Soleus – Seated Calf Raise Tibia Flexor – Tibia Flexion

Our typical leg routine is a "mix and match" of equipment, need, and preference.

NECK ROUTINE

For all of our athletes involved in contact sports, we place a premium on neck training. This is by far the most important thing we do in the weight room. We will often train our necks before we train the rest of our body.

Neck Flexion

Neck Extension

Lateral Neck Flexion (left and right)

Shrugs





SIX STRENGTH TRAINING VARIABLES

How many repetitions?

Perform 2 to 10 repetitions for the upper body and 2 to 15 repetitions for the lower body. Only record the number of repetitions properly performed on the workout card.

How much weight should be used?

Use as much weight as possible (once the proper lifting techniques have been learned) so that the point of MMF has been reached between 30 and 60 seconds or from 2 to 10 repetitions. Selecting a starting weight is trial and error. The key below will tell you when and how you should add weight for your next workout.

Key: Upper Body 2-10 Repetitions

< 2 repetitions, - 10 lbs.

2-9 repetitions use the same weight next workout

10 repetitions, + 5 lbs.

-

Key: Lower Body 2-15 Repetitions

< 2 repetitions, - 10 lbs.

2-14 repetitions, same weight next workout

15 repetitions, +5-10 lbs.

How many sets should be performed?

We recommend that you complete 1 to 3 sets each time you workout. It is important to note that each set must be completed with the maximum amount of effort. When performing at this level, each set should be performed until no more repetitions can be completed (MMF).

How much recovery time between exercises or sets?

When performing one set of an exercise, only use the time needed to move to the next exercise as recovery time. When performing 3 sets of an exercise, allow 90 second intervals of rest between sets.

How many times should I train in a week?

You should train one to four times per week, on alternating days. You can train three to four times a week if you split the upper and lower body routines.

What exercises should be performed?

The exercises performed will depend upon the equipment available to you. The exercises you perform are not the key to the strength gains; the manner in which you perform the exercise is the key.





EXERCISE DESCRIPTION

CHEST

BENCH PRESS

Starting Position: The head should be placed with the eyes directly under the bar and feet flat on the floor.

Movement: Lower the bar in a controlled fashion until it touches the chest near the nipples. Push upward with the bar traveling in a slight arc as it is raised to full extension. Avoid bouncing or heaving the bar off the chest, raising your legs off the bench, or shifting your feet.

Muscle Group Involved: Pectoralis Major, Deltoids (Front Shoulder), Triceps





INCLINE PRESS

Starting Position: Seated from an incline position the head should be placed with the eyes directly under the bar and feet flat on the floor.

Movement: Lower the bar in a controlled fashion until it touches the chest near the nipples. Push upward with the bar traveling in a slight arc as it is raised to full extension. Avoid bouncing or heaving the bar off the chest, raising your legs off the bench, or shifting your feet.

Muscle Group Involved: Pectoralis Major (Upper Chest), Deltoids, Triceps









EXERCISE DESCRIPTION

CHEST

D.B. BENCH PRESS

Starting Position: Lie down on flat bench, feet on floor, and keep the buttocks and shoulders on the bench. Hold dumbbells in each hand.

Movement: Lower dumbbells to the chest. Press dumbbells back into a lockout. Control the weight up and down.

Muscle Group Involved: Pectoralis Major, Deltoids (Front Shoulder), Triceps





D.B. INCLINE PRESS

Starting Position: Seated from an incline position, feet on floor, and keep the buttocks and shoulders on the bench. Hold dumbbells in each hand.

Movement: Lower the dumbbells to the upper chest. Press the dumbbells into a lockout position. Control the weight up and down.

Muscle Group Involved: Pectoralis Major (Upper Chest), Deltoids, Triceps









EXERCISE DESCRIPTION SHOULDERS

PUSH PRESS

Starting Position: Standing with knees slightly bent grip the bar a little wider than shoulder width apart. Begin with the bar resting on the top of the upper chest, front shoulder area.

Movement: Press the bar overhead until the arms are fully extended. Return the bar to the starting position and repeat. This exercise should be done with control in the press and also the lowering of the bar.

Muscle Group Involved: Anterior Deltoid, Triceps





D.B. SHOULDER PRESS

Starting Position: Seated in an upright position, feet flat on ground, and back flat on bench. Begin with the dumbbells resting on the top of the upper chest.

Movement: Press the dumbbells overhead until the arms are fully extended. Return the dumbbells to the starting position and repeat. This exercise should be done with control in the press and also the lowering of the bar.

Muscle Group Involved: Anterior Deltoid, Triceps









EXERCISE DESCRIPTION

SHOULDER

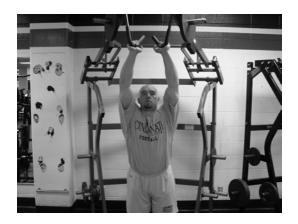
JAMMER SHOULDER PRESS

Starting Position: Standing with knees slightly bent grip the machine handles from the bottom. Begin with the handles resting on the top of the upper chest, front shoulder area.

Movement: Press the handles overhead until the arms are fully extended. Return the bar to the starting position and repeat. This exercise should be done with control in the press and also the lowering of the bar.

Muscle Group Involved: Anterior Deltoid, Triceps





D.B STANDING SHOULDER PRESS

Starting Position: Standing with knees slightly bent and feet flat on floor. Begin with the dumbbells resting on the top of the upper chest.

Movement: Press the dumbbells overhead until the arms are fully extended. Return the dumbbells to the starting position and repeat. This exercise should be done with control in the press and also the lowering of the bar.

Muscle Group Involved: Anterior Deltoid, Triceps









EXERCISE DESCRIPTION

NECK

BARBELL SHRUG

Starting Position: Standing with knees slightly bent grab the bar about shoulder width apart. Bar should be approximately at mid thigh when the initial pull is made.

Movement: Pick up bar as high as possible, raising your shoulders as if you are trying to touch your ears. Keep arms straight and do not roll your shoulders from front to back.

Muscle Group Involved: Trapezius, Deltoids





UPRIGHT ROW

Starting Position: Hold bar palms down with hands about 12 inches apart. Stand erect with slight bend in knees, hold bar at arms length.

Movement: Raise the bar straight up under your chin, keeping the bar close to the body. Keep elbows higher than your wrists. Control the bar on the way down.

Muscle Group Involved: Deltoids, Trapezius







EXERCISE DESCRIPTION

HIPS/ LEGS

BARBELL SQUAT

Note: The barbell squat is a difficult exercise. This exercise is only to be done with perfect technique. When you arrive at Cincinnati we will supervise each individual at this exercise.

Setting Rack for Starting Position: Set bar placement at 1-3 inches above chest level. Set safety bars at slightly below parallel squat position.

Starting Position: Place bar on upper back, letting it rest comfort during exercise. Place feet slightly wider than shoulder width apart with feet pointed slightly out. Head should be straight at all times.

Movement: Slowly bend at knees keeping chest and shoulders from leaning excessively forward. Upper back should be kept flat with lower back extended. Squat depth should be as low as possible; top of thighs should be parallel to ground. Feet should stay flat at all times, drive bar upward by pushing through your heels and return to starting position.

Muscle Group Involved: Quadriceps, Gluteus Maximus and Spinal Erectors





YOKE SOUAT

Setting Rack for Starting Position: Set yoke bar placement at 1-3 inches above chest level. Set safety bars at slightly below parallel squat position.

Starting Position: Place yoke bar on upper back, letting it rest comfortly during exercise. Place feet slightly wider than shoulder width apart with feet pointed slightly out. Head should be straight at all times. Hands should be placed on handles for balance only.

Movement: Slowly bend at knees keeping chest and shoulders from leaning excessively forward. Upper back should be kept flat with lower back extended. Squat depth should be as low as possible; top of thighs should be parallel to ground. Feet should stay flat at all times, drive bar upward by pushing through your heels and return to starting position. Handles should be for balance only; no pulling or gripping should be done.

Muscle Group Involved: Quadriceps, Gluteus Maximus and Spinal Erectors









EXERCISE DESCRIPTION

HIPS/ LEGS

LEG PRESS

Starting Position: Position feet on the platform so that the knees do not come over the toes when doing the exercise. Keep your rear end all the way down in the seat. Position the seat close to allow for a full range of motion and so the carriage does not contact the bumpers before reaching a thigh parallel position.

Movement: Press the weight using the hip and thigh muscles. Push the heels through the platform. Do not bounce the weight. Exhale while pressing the weight. Do not hold breath.

Muscle Group Involved: Hips, Gluteus Maximus, Hip Flexor, Quadriceps, Hamstrings, Groin





DEADLIFT

Starting Position: Position the feet the same as the squat. Position the body over the weight with knees bent, chest out and chin up. When using a Trap Bar or dumbbells, the hands should be at the heels with palms facing one another. With a straight bar, position the bar close to or against the shins with one hand over, one under grip.

Movement: Keep the heels flat on the floor, chest out, chin up. Lift the weight using the hip and thigh muscles. The shoulders will rise before the hips. Imagine pushing the heels through the floor as the weight is lifted. The back should be flat but angled forward slightly. The hips should come forward as they rise. Come all the way to the top so the body is standing erect. Lower the weight back to the floor in the reverse manner that is lifted. Do not bounce the weight off the floor.

Muscle Group Involved: Hips, Gluteus Maximus, Hip Flexor, Quadriceps, Hamstrings, Groin









EXERCISE DESCRIPTION

HIPS/ LEGS

LEG CURL

Starting Position: Adjust to the pad to allow for allow for full range of motion and so the back does not arch excessively.

Movement: Slowly curl the heels towards the rear end, pause in the contracted position. Be sure to lift the weight and not throw it. Lower the weight slowly all the way down to the starting position.

Muscle Group Involved: Gluteus Maximus, Hamstrings





STRAIGHT LEG DEADLIFT (S.L.D.)

Starting Position: Place hands in an overhand grip slightly wider than shoulder width. Align the feet under the armpits. At the top, slightly bend the knees and tilt the pelvis so the rear end is extended. Retract the shoulder blades.

Movement: While keeping the back flat, chest out and head up, tilt over the bar traveling down the legs until the chest is parallel to the floor. Keep the same slight bend in the knee through the entire movement. Keep the rear end high and push the hips back. Weight should be on the heels. Return to the top under control and repeat. Do not round the round the back during the movement. Only go down as far as your flexibility allows you. The movement is not at the waist, but rather at the hips. The hips must rotate backwards.

Muscle Group Involved: Hips, Hamstrings, Gluteus Maximus, and Spinal Erectors









EXERCISE DESCRIPTION

HIPS/ LEGS

LUNGE

Starting Position/ Movement: Begin with body erect. Step forward with a long stride, keeping upper body straight. Go down in a controlled manner to the depth of a squat, until you reach the bottom. Make sure that your knee does not go beyond the foot. Push back with extended leg until you are at the starting position. Alternate legs each repetition. You can use dumbbells, barbells, or a weighted vest to perform this exercise.

Muscle Group Involved: Hips, Gluteus Maximus, Hip Flexors, Quadriceps, Hamstrings, Groin





STEP-UP

Starting Position/ Movement: Start with body erect, hands to your side. Step up onto the box with the right foot, placing entire foot onto platform. Push up on the box with right foot. Drive back leg up until it is at waist level. Step off box the same way you stepped on it. Make sure that you alternate legs. Do not jump off the box onto the floor. Dumbbells, weight bar, or sandbags can be used when performing this exercise.

Muscle Group Involved: Hips, Gluteus Maximus, Hip Flexor, Quadriceps, Hamstrings, Groin









EXERCISE DESCRIPTION

UPPER BACK

SEATED ROW

Starting Position: Set seat height so pad supports chest. Grasp handles with both hands.

Movement: Begin exercise with arms fully extended. Slowly pull the handles to the armpits while squeezing the shoulder blades together. Attempt to pull the elbows behind the body. Pause the handles at the armpits and slowly lower the weight to the starting position. Keep chest against pad at all times.

Muscle Group Involved: Latissimus Dorsi (upper back) and Biceps





D.B. ROW

Starting Position: Place the opposite hand on a bench for support. Place feet slightly behind the hips with the knees slightly bent. Keep the rear end up through the entire movement. Back flat and head up. Grasp the dumbbell in one hand.

Movement: Begin the exercise with the weight at arm length. Slowly pull the weight to the chest while squeezing the shoulder blades together. Attempt to pull the elbows behind the body. Think of the hands as hooks and pull the weight with the upper back muscles. Pause the weight at the chest and slowly lower the weight to the starting position. Avoid using the lower back muscles by not swinging or throwing the weight at the top.

Muscle Group Involved: Latissimus Dorsi (upper back) and Biceps









EXERCISE DESCRIPTION

UPPER BACK

PULLDOWN

Starting Position: Adjust seat position so that the knees are at a 90 degree angle to the floor. Keep the abdominal contracted. Grasp the handles with an even grip on both sides.

Movement: Slowly pull the handles down in a controlled fashion. Drive elbows back and keep chest against the pad. Pause the weight at the bottom and slowly control the weight back to the starting position. Avoid using the lower back muscles by rocking back and forth.

Muscle Group Involved: Latissimus Dorsi (upper back) and Biceps





CHINS

Starting Position: Grasp the bar with a supinated grip, palms facing the body. The hands should be evenly spaced and shoulder width apart.

Movement: Begin the exercise with arms straight. Pull the chin over the bar, attempt to touch the chest to it, pause briefly at the top and lower the body slowly until the arms are straight. Do not kick or swing the legs.

Muscle Group Involved: Latissimus Dorsi/Biceps









EXERCISE DESCRIPTION

ARMS

BARBELL CURL

Starting Position: Standing with knees flexed, holding a straight bar with a palms up grip and arms fully extended.

Movement: Curl arms all the way up until the arms are fully flexed. Then control the bar down, back to the starting position. Remember to keep your knees bent, and don't rock throughout the exercise.

Muscle Group Involved: Biceps



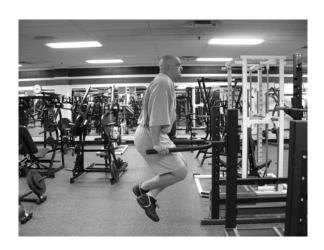


DIPS

Starting Position: Arms fully extended holding the body upright without swinging.

Movement: Lower your body until your arms are at 90-degree angles or your biceps are parallel to the floor. Then return to the starting position.

Muscle Group Involved: Triceps, Lower Chest, and Front Shoulder









NUTRITION

Nutrition is the one component of fitness programs that most people are misinformed about or misunderstand. Everywhere you turn you hear or read about someone who has gained or lost twenty pounds in one week. This type of information is misleading and dangerous. As athletes, you must be able to separate the facts and fiction of dietary habits in order to perform at your optimum level. You cannot run a high performance racecar on kerosene.

The following facts that are listed below are published by the American Dietetic Association and have been reviewed by the Food and Drug Administration. Every person, whether an athlete or not, should adhere to these guidelines in order to lead a healthy and prosperous life.

BALANCED DIET

Each person should eat a well balanced diet. A balanced diet should consist of eating sixty percent carbohydrates, thirty percent fat, and ten percent protein. The majority of one's carbohydrates should come from fruit and vegetable sources. The majority of one's energy supplied by fat should come from unsaturated fats, those that remain liquid at room temperature. Finally the majority of protein intake in one's diet should come from chicken, fish, and beans as opposed to red meats.

Complex Carbohydrates = Grain products, vegetables, fruits, oatmeal, rice, and pastas
Fats = Low fat milk, low fat yogurt, low fat cheese, low fat ice cream, oils
Proteins = Skinless boneless chicken breast, fish (tuna, haddock, shrimp, roughy), beans, low-fat peanut butter, ground or sliced turkey, lean ham, and top round sirloin

DO NOT SKIP MEALS

It is important to maintain food intake at constant levels throughout the day. Your weight regulation mechanism in your body is referred to as your set point. It can be compared to the thermostat in a heating and cooling system. Skipping meals to lose weight is counterproductive and actually slows your body's metabolism down. Thus, if your goal is to lose weight then it is imperative that you eat five to six meals per day. A meal may include a turkey sandwich and a bag of carrots or a piece of fruit. You can wash all of this down with a glass of milk or water. The key here is small portions. A portion should be about the size of your fist. This will increase your metabolism thus decreasing the amount of calories that you store as fat. On the other hand if you are trying to increase your weight it is best to eat three good-sized meals every day. Supplement these meals with one to two snacks and you should have no problem gaining an extra couple of pounds. One key factor that many athletes do not understand is that your body can only absorb a certain amount of nutrients at one time. So it is imperative that you constantly fuel your body.





LARGE AMOUNTS OF PROTEIN ARE NOT ESSENTIAL

Protein is the most poorly understood and possibly the most abused nutrient in the athletic community. The recommended daily allowance for protein is calculated as follows, 1 gram per 2.2 pounds of body weight. Therefore a 220-pound male only needs 100 grams of dietary protein per day. This is equivalent to sixteen ounces of red meat. Thus protein supplements are unnecessary and can be money that is foolishly spent. It is also important to keep in mind that your body can only absorb about thirty grams of protein in one sitting. Any excess will be excreted. This reiterates the need to eat smaller meals more often throughout the day. Remember, weight gain is a combination of increasing a balanced diet, which increases total caloric intake.

ARE VITAMIN SUPPLEMENTS NECESSARY

Athletes tend to consume large amounts of food and if a sensible selection occurs there should be an adequate intake of vitamins and minerals. On the other hand, if your diet is not balanced a supplement may prove to be beneficial. However, keep in mind that the finest sources of vitamins and minerals come from foods and not pills.

WEIGHT REDUCTION

Weight reduction is a simple mathematical formula. For every 3500 calories that you burn you will lose one pound. This reduction of 3500 calories may come from a combination of increased activity or decreased caloric intake. A combination of exercise and diet is the most sensible approach. If you reduce your diet by five hundred calories a day as well as engage in twenty minutes of cardiovascular activity per day you will lose about two pounds in one week. Losing more than two pounds in one week is actually counterproductive do to the fact that you begin to lose muscle mass as opposed to fat mass. Therefore do not fall for these fad diets that claim to enable you to lose ten pounds in one week. The key here is that you want to reduce your body fat and increase your lean muscle mass

HOW TO LOWER FAT SELECTION

- *Buy lean cuts of meats
- *Trim the excess fat
- *Do not fry foods, instead bake, broil, poach, steam, or grill them
- *Use fats sparingly, if you must use them stick with unsaturated fats
- *Use skim or low fat milk products

Excess weight in the form of fat will affect your speed and endurance levels. Our goal is to make you bigger, not fatter. The following pages contain an analysis of foods and their caloric contents. These pages are to be used as reference guides to improve your overall eating habits.





2000 Calories

2000 Calories					
BREAKFAST	SERVING	CAL	PRO <u>CAL</u>	FAT <u>CAL</u>	CHO <u>CAL</u>
Cooked Grits	1 cup	145	12	0	124
Lean Ham	2 pcs.	105	68	36	0
Poached Egg	1	82	26	52	2
Wheat Bread	2 slices	122	21	14	94
Pineapple Juice	1 cup	140	4	0	136
Tr Tr	- ···P	594	131	102	480
		29%	25%	34%	37%
LUNCH					
Egg Noodles	1 cup	200	28	18	148
Roasted Chck. Drum	1	150	96	36	5
Cooked Green beans	1 cup	45	8	0	40
Skim Milk	12 oz.	140	54	8	76
Oat./Raisin Cookie	2	116	7	36	76
Pear	1	100	<u>4</u>	_ 9	95
		751	197	107	$\overline{440}$
		36%	38%	35%	34%
DINNER					
Baked Flounder	6 oz.	160	136	18	0
Italian Bread	2 slices	165	24	0	136
Tossed Salad	2 cups	58	8	0	48
French Dressing	2 tbsp	50	0	36	16
Cooked Broccoli	4 oz.	30	11	3	17
Water	12 oz.	0	0	0	0
Unsw. Applesauce	1 cup	<u>105</u>	0	0	<u>105</u>
		568	177	57	322
		28%	34%	19%	25%
SNACK					
Honey & Oat	1	117	8	36	67
Granola Bar		6%	2%	12%	5%
DAILY TOTALS		2030	515 24%	302 14%	1309 63%





2000 Calories

2000 Calories					
BREAKFAST Grape Nuts Cereal Skim Milk Wheat Toast Margarine Cantaloupe	SERVING 1/4 cup 6 oz. 2 slices 2 pats 1/2 med.	CAL 100 70 122 70 82 444 21%	PRO <u>CAL</u> 12 27 21 0 <u>8</u> 68 15%	FAT CAL 0 4 14 70 3 91 26%	CHO <u>CAL</u> 92 38 94 0 80 304 23%
LUNCH Corn Tortillas Lean Ground Beef Lettuce Tomato Onion Spanish Rice Rootbeer	3 3 oz. 1/4 cup 1 med. 1/4 cup 1 1/2 cup 12 oz.	195 230 6 40 15 195 <u>146</u> 827 40%	24 84 0 8 2 16 0 134 30%	27 144 0 0 0 35 0 206 59%	156 0 6 32 14 149 155 512 39%
DINNER Steamed Scallops Whole Wheat Roll Cooked Broccoli Baked Potato Cooked Corn Tea	4 oz. 2 1 cup 1 med. 1 ear 12 oz.	127 180 45 220 85 3 660 32%	106 28 16 20 12 0 182 41%	14 18 9 0 9 0 50 14%	0 145 32 204 76 3 460 35%
SNACKS Lite-Line Cheese Grapes DAILY TOTALS	2 oz. 30	104 <u>54</u> 158 8% 2089	58 <u>4</u> 62 14% 446	40 <u>8</u> 48 14% 347	4 49 53 4%
			20%	16%	64%





3000 Calories

Suud Caiories					
	anni wi	~ . •	PRO	FAT	СНО
BREAKFAST	<u>SERVING</u>	CAL	CAL	CAL	<u>CAL</u>
Scrambled Egg	2	160	48	108	8
Oatmeal	1 cup	145	24	18	100
Raisins	1/4 cup	109	5	1	105
Orange Juice	8 oz.	112	7	4	100
Bagel	1	200	28	18	152
Skim Milk	12 oz.	<u>132</u>	53	3	<u>75</u>
		858	165	152	540
		28%	23%	33%	28%
LUNCH	_				
Light Turkey	8 oz.	149	112	30	0
Lettuce	1 pc	2	0	0	2
Tomato	1/4 med	10	2	0	8
Mustard	1 tsp	4	1	2	1
Pita Bread 6 1/2"	1	165	24	9	132
Low Fat Yogurt	8 oz.	230	40	18	172
Beef Noodle Soup	2 cups	280	63	97	114
Fruit Punch Drink	12 oz.	<u>170</u>	0	0	<u>176</u>
		1010	242	156	605
		33%	34%	34%	32%
<u>DINNER</u>					
Lean Roasted Ham	7 oz.	300	195	95	0
Cooked Greens	1 cup	25	8	0	20
Cooked Corn Meal	1 cup	120	12	0	104
Black-Eyed Peas	1 cup	190	52	9	140
Wild Rice	1 cup	221	27	5	191
Fresh Carrots	1 cup	49	6	3	44
Water	12 oz.	0	0	0	0
		905	300	112	499
		29%	42%	24%	26%
SNACKS					
Fig Bars	4 cookies	210	8	36	168
Banana	1	<u>101</u>	5	2	<u>100</u>
		311	13	38	268
		10%	2%	8%	14%
DAILY TOTALS		3084	720	458	1912
			23%	15%	62%





3000 CALORIES

3000 CALORIES			DD ()	EAT	CHO
DDEALZEACE	CEDVING	CAT	PRO	FAT	СНО
BREAKFAST	SERVING	<u>CAL</u>	CAL	CAL	CAL
Skim Milk	2 cups	172	68	9	95
Egg Whites	3	45	46	0	0
Wheat Toast	2	110	6	2	90
Grape Juice	1 cup	167	2	0	165
Shredded Wheat	2 cups	220	8	0	102
Banana	1	127	4	0	123
Jam	2 tbsp	<u>110</u>	0	0	<u>110</u>
		951	134	11	685
		32%	25%	2%	36%
<u>LUNCH</u>					
Beef Stew	1 1/2 cups	327	94	141	91
Biscuit	1	103	9	45	52
Corn On The Cob	2	140	20	14	129
Wild Rice	1 cup	221	27	5	192
Cantaloupe	1/2	82	8	7	80
Choc Chip Cookie	2	100	9	32	56
Water	12 oz.	0	0	0	0
		973	167	244	600
		33%	31%	53%	32%
DINNER					
Baked Flounder	6 oz.	342	204	124	0
Baked Potato	1 med.	145	16	2	130
Margarine	2 pats	70	0	70	0
Green Beans	1 cup	32	8	3	28
Canned Pineapple	1 cup	189	3	3	185
Lemonade	12 oz.	161	0	0	161
Apple	1	<u>96</u>	0	<u> </u>	89
		1035	231	209	593
		35%	43%	45%	32%
DAILY TOTALS		2959	532 18%	464 17%	1878 64%





4000 CALORIES

4000 CALORIES			DD O	TEATE	CHO
BREAKFAST	SERVING	<u>CAL</u>	PRO <u>CAL</u>	FAT <u>CAL</u>	CHO <u>CAL</u>
Raisin Bran	1 cup	130	14	5	120
Bagel	1	200	28	18	152
Cantaloupe	1/2	82	8	3	81
Hash Browns	1 cup	355	19	163	180
Poached Egg	1	82	26	52	2
Wheat Bread	2 slices	122	21	14	92
Jam	2 Tbsp	110	1	2	112
Orange Juice	8 oz.	112	7	4	100
Skim Milk	12 oz.	<u>132</u>	_53	3	<u>75</u>
		1325	177	264	914
		33%	26%	34%	35%
LUNCH					
Orange Juice	8 oz.	112	7	4	100
Fruit Cocktail	1 cup	194	4	3	200
Cooked Green Beans	1/2 cup	16	4	1	14
Mixed Vegetables	1/2 cup	58	12	2	50
Spaghetti & Meat	1 cup	332	74	105	155
Dinner Roll	2	238	23	54	156
Lite-Line Cheese	3 oz.	156	88	59	7
Baked Sweet Potato	1	115	8	0	112
Diet Soda	12 oz.	1	0	0	
		$\overline{122}1$	$\overline{220}$	$\overline{228}$	795
		31%	32%	29%	31%
DINNER					
Tea	12 oz.	3	0	0	3
Baked Potato	2 med.	290	32	4	260
Canned Peas	1/2 cup	68	16	3	51
Lean Steak	5 oz	300	176	108	0
Whole Wheat Roll	2	180	28	18	145
Jell-O w/ Fruit	1 cup	<u>186</u>	11	<u>68</u>	<u>115</u>
		$\overline{1027}$	263	201	574
		26%	38%	26%	22%
SNACKS					
Apple	1	96	0	9	96
Chocolate Pudding	1 cup	310	32	<u>72</u>	<u>216</u>
3	ı	406	32	81	$\overline{312}$
		10%	5%	10%	12%
DAILY TOTALS		3979	692	774	2595
<u>-</u>			17%	19%	65%





4000 CALORIES

4000 CALORIES			DDA	БАТ	CHO
BREAKFAST Skim Milk Poached Egg Whole Wheat Bread Jam Plain Pancake 6" Maple Syrup Unsw. Applesauce Orange Juice	SERVING 12 oz. 1 2 slices 2 Tbsp 3 3 1 cup 6 oz.	CAL 132 82 122 110 492 150 110 84 1282	PRO <u>CAL</u> 53 26 21 1 64 0 0 <u>5</u> 170	FAT CAL 3 52 14 1 143 0 0 3 216	CHO <u>CAL</u> 75 96 113 284 153 110 <u>77</u> 909
LUNCH Chicken & Noodles Spag. & Meat Sauce Sesame Roll Tossed Salad Italian-Low Cal. Diet Soda Fresh Strawberries Broccoli Macaroni Salad Wild Rice	1/2 cup 1 cup 2 2 cups 2 Tbsp 12 oz. 1 cup 1 cup 1/2 cup 1 cup	32% 183 332 122 58 16 1 55 48 167 221 1203 30%	26% 44 75 12 8 0 4 22 15 27 207 32%	24% 83 105 36 0 13 0 6 5 53 53 6 33%	37% 52 155 72 48 3 1 50 34 97 192 704 28%
DINNER Potato Soup Sesame Roll Canned Green Beans Grapes Fresh Strawberries Tea Spanish Rice Tomato Skim Yogurt Skinless Chicken Blueberry Muffin	1 cup 2 1 cup 20 1 cup 12 oz 1 cup 1 med 8 oz 6 oz 2	158 122 32 68 55 3 130 40 113 174 224 1119	25 12 8 2 4 0 11 8 31 133 23 257	74 36 3 4 6 0 24 4 30 33 67 281	60 72 28 68 50 3 99 33 45 0 134 592
SNACKS Peach Pie Banana DAILY TOTALS	1 pc 1	28% 301 101 402 10% 4006	39% 12 5 17 3% 651 16%	31% 113 2 115 13% 918 23%	24% 180 102 282 11% 2487 62%





Fast Foods

An occasional meal at a fast food restaurant will not destroy balance in the diet. Fast foods are high in fat and calories and will raise the percentage of fat. A player on a 4000-calorie diet should take in 90 grams of fat daily (810 calories). At McDonalds, a Big Mac, French fries, and apple pie contains 61 grams of fat (549 calories). Therefore, other meals for the day should be lower in fat to offset the intake of fat at McDonalds. It is beneficial to learn which foods are high in fat in order to better justify meals.

The following outlines the daily-recommended intake of fat based on caloric intake, as well as the fat analysis of various fast food restaurants.

CALORIC INTAKE F	CAT INTAKE (CAL)
6000	1200
5000	1000
4000	800
3000	600
2000	400

Fast Foods Fat Analysis:

ARBY'S	CAL	FAT CAL	FAT %
Regular Roast Beef	350	135	39%
Deluxe Roast Beef	486	207	43%
Chicken Breast Sandwich	592	243	41%
Hot Ham & Cheese	353	117	33%
Turkey Deluxe	375	153	41%
Deluxe Super Stuffed Potato	648	342	53%
Chicken Salad & Croissant	472	324	69%
Vanilla Shake	295	90	30%
BURGER KING	CAL	FAT CAL	FAT %
Whopper	607	288	48%
Onion Rings	274	144	53%
Chicken Tenders	204	90	44%
Breakfast Croisanwich:			
-Sausage, Egg, Cheese	538	369	69%
-Ham, Egg, Cheese	335	180	54%
Bacon Scrambled Egg Platter	536	324	60%
Sausage French Toast Platter	635	414	65%
DAIRY QUEEN	CAL	FAT CAL	FAT %
Big Brazier Deluxe	407	261	46%
Brazier Onion Rings	300	153	51%
Buster Bar	390	198	51%
Fish Sandwich	400	153	38%
Chili Dog	570	288	50%







KENTUCKY FRIED CHICKEN	CAL	FAT CAL	FAT %
Extra Crispy Dinner	951	486	51%
Original Recipe Dinner	831	414	50%
Buttermilk Biscuit	269	122	46%
Potato Salad	141	83	59%
Cole Slaw	103	51	50%
McDONALD'S	CAL	FAT CAL	FAT %
Apple Pie	300	171	57%
Cherry Pie	298	162	54%
Big Mac	542	279	52%
Egg McMuffin	352	180	51%
Filet Of Fish	402	207	51%
French Fries	211	99	47%
Hamburger	257	81	31%
Quarter Pounder With Cheese	519	261	50%
McD.L.T.	680	396	58%
Bacon, Egg, Cheese Biscuit	483	284	59%
Hot Cakes With Butter & Syrup	500	93	18%
Hash Browns	125	63	50%
TACO BELL	CAL	FAT CAL	FAT %
Bean Burrito	330	60	15%
Burrito Supreme	350	70	20%
Taco	140	50	30%
Taco Supreme	160	50	34%
Soft Taco	180	50	27%
Soft Taco Supreme	200	50	25%
Chicken Soft Taco	180	50	25%
Chicken Burrito	290	60	20%
7-Layer Burrito	440	80	18%
Chicken Burrito Supreme	410	90	22%
Taco Salad	680	235	33%

Food Substitutions:

HIGH FAT ITEMS: ITEMS TO SUBSTITUTE:

AMT	ITEM	CAL	CAL	ľ	ГЕМ	CAL	CAL	SVD	SVD
DAIR	Y PRODUCT	'S			DAIR	Y PRO	DUCT	S	
1 cup	Whole Milk	4%159	77	S	kim Milk	88	2	71	75
1 cup	Cottage Chee	se239	86	19	% Cot. Ch	180	18	59	68
1 tsp	Butter	34	34	D	iet Marg	16	15	18	19
1	Fried Egg	99	71	Pe	oached Egg	82	52	17	19
1 cup	Ice Cream	295	144	S	herbert	259	21	36	123
1 oz.	Cheddar Ch	113	82	L	ite Line	52	20	61	62







1 cup Egg Nog 1 tbsp Lt. Whip. Cr	340 45	171 45		Ice Milk Whip. Top.	185 15	54 9	155 30	117 36	
CONDIMENTS				CON	DIMEN	ITS			
1 tbsp French	66	56		Low Cal Fren		15	6	51	50
1 tbsp 1000 Island	80	72		Low Cal 100		27	19	53	53
1 tbsp Mayonnaise	101	101		Diet Mayo		40	36	61	65
1 tbsp Sour Cream	27	27		Mustard		8	4	19	23
1 tbsp Tartar Sauce	75	72		Pln. Nonfat Y	og.	15	0	60	72
INTERNATIONAL	FOOL	OS		INTE	RNATI	IONAL	FOOL	OS	
1 Slice Thk. Pep. Piz	za	140	41	Thin 1	Pep. Piz	108	39	32	2
1 Slice Sausage Pizza		157	56		se Pizza		49	4	7
1 Slice Spaghetti w/n	neat	332	105	Spagh	n w/tom.	260	79	72	26
1 Slice Beef Burrito		466	189	Bean	Burrito	343	108	123	81
1 Slice Beef Enchilad	da	275	144		en Ench		81	58	63
1 Each 1/4 lb. w/chee	ese	518	283		en Sand	l. 413	173	105	84
1 Each Big Mac		541	283	Filet (Of fish	402	204	139	79
VEGETABLES & POTATOES VEGETABLES & POTATOES									
1 serv. French Fries	145	59		Baked Potato	137	2	8	57	
1/2 ea. Avocado	188	167		Carrot	30	1	158	166	
1 serv. Onion Rings	274	144		Onion	40	1	234	143	
1 serv. Cole Slaw	103	51		Cabbage	30	0	73	51	
1 serv. Potato Salad	141	83		Plain Potato	137	2	4	81	
1 oz. Sun Seeds	160	126		Peas	80	4	80	122	
1 tbsp Peanut Butter	95	72		Tofu	40	20	55	52	
GRAIN PRODUCT	S			GRA	IN PRO	DUCT	S		
1 slice White Bread		63	8	Whea	t Bread	61	7	2	1
1 cup Captain Crun	ch	179	35	Grape	Nuts	150	5	29	30
1 cup Quak 100% N	Vat.	144	56	Raisir	n Bran	137	6	7	50
1 cup Fried Rice		353	211	White	Rice	223	2	130	209
1 each Buttermilk Bi	sc.	269	122	Bagel		200	2	69	120
1 cup Bread Stuffin	g	420	234	Corn	Grits	145	1	275	233
AMT ITEM	CAL	CAL		ITEM	CAL	CAL	SVD	SVD	
4 P.B. Cookies	245	126		Fig Bars		210	36	35	90
1 each Croissant	235	108		Bagel	200	2	35	106	
1 each Donut	210	108		English Muff		140	9	70	99
MEAT									
1 each Fried Chk. Bı				MEA	T				
I cacii Tilcu Ciik. Di	rst.160	46		MEA Roasted Chic		139	26	21	20
5 oz. Broil Sirloin	rst.160 400	46 298			ken	139 240	26 90	21 160	20 208
				Roasted Chic Broiled Halib	ken out				
5 oz. Broil Sirloin	400	298		Roasted Chic	ken out np	240	90	160	208





3 oz.	Boiled Ham	198	130	Lite Turkey	150	30	48	100
3 oz.	Veal, Rib	230	126	Roasted Chicken	139	26	91	100
3 slice	esBacon	110	81	Canadian Bacon	85	36	25	45

^{**}We recommend no more than 20% of your daily intake to be fats. Obviously, many of the foods from the fast food services are an extremely high percentage of fat and eating these foods on a regular basis can create problems for both athletes and non-athletes alike.**

NOTE: Calories from carbohydrates, fat, and protein may not add up to the total calories shown because of the empty calories.

HIGH PERFORMANCE FAST MEALS - BREAKFAST

Food	Calories	Protein	Carb	s Fa	t
McDONALD'S Plain English Muffin (2) Strawberry Jam (1) Scrambled Egg (1) Orange Juice (6 ounces) 2% Milk	474	17%	56%	25%	
or					
Hot cakes with butter	650	11%	66%	25%	
½ syrup packet Orange Juice (6 ounces) 2% Milk (1 carton)					
FAMILY STYLE RESTAURAN' (Perkins, Denny's, Shoney's) Buttermilk pancakes 5" (3) Butter (1 pat) Egg (1) Syrup (3 tbsp) Orange Juice	Γ 761	12%	67%	20%	
or					
Cold Cereal (1 cup) with 2% Milk (4 ounces) Egg (1) English Muffin Butter (1 Pat) Jelly (1 packet) Orange Juice (4 ounces)	668	15%	58%	26%	





<u>HIGH PERFORMANCE FAST FOOD MEALS – LUNCH & DINNER</u>

Food	Calories	Protein	Carbs	Fat
McDONALD'S				
Chicken Sandwich w/ BBQ Sauce Side Salad w/ ½ Packet Low Cal. Vinegar & Oil Dressing Orange Juice (6 oz.) 2% Milk	667	23%	51%	25%
or				
Grilled Chicken Sandwich Side Salad w/ Vinaigrette Dressing (Vanilla Shake Orange Juice (6 oz.)	810 (1 pack)	19%	62%	19%
WENDY'S				
Chicken Breast Sandwich On Multi Grain Bread (no mayo) Baked Potato Sour Cream (1 pack) 2% Milk	719	22%	53%	25%
ARBY'S				
Jr. Roast Beef On Multigrain Bread w/ Lettuce & Tomato (no mayo) Side Salad 2% Milk	695	22%	51%	27%

or

Arby's Regular Roast Beef

Side Salad*
Vanila Shake
*1/2-Cup Lettuce, 1 Cup Veggies
¹½ Cup Garbanzo Beans, ¼ Cup
Cottage Cheese, 2 tbsp
Low Cal Dressing





Skin Free Chicken (center breast)	720	13%	59%	28%
BBQ Sauce Mashed Potatoes Corn On The Cob Coleslaw Soda (16 oz.)				
TACO BELL				
2 Light 7-Layer Burritos1 Light Chicken Burrito1 Light Taco2% Milk	1430	22%	56%	21%
or				
3 Tostadas 1 Plain Tortilla 2% Milk	1105	19%	53%	27%
or				
1 Tostada 2 Bean Burritos 1 Plain Tortilla 2% Milk (8 oz.)	1105	18%	55%	28%
PIZZA HUT				
Large Spaghetti w/ Meat Sauce Breadsticks 2% Milk	1023	19%	61%	20%
or				
1/2 Medium Onion, Green Pepper, and Cheese Pizza 2 Breadsticks 2% Milk (8oz.)	1126	20%	55%	25%





FAMILY STYLE RESTAURANT

(Perkins, Denny's, Shoney's)

Baked Fish 1100 25% 51% 23%

Baked Potato w/ Sour Cream

1 Muffin

Salad Bar – Lettuce & Low Cal. Dressing

2% Milk (8oz)

Sherbet

Or

Hawaiian Chicken 1053 20% 67% 13%

Baked Potato

Rice

Grecian Bread

Side Salad

Orange Juice (8oz.)

Soda (16 oz.)





REST & RECOVERY

The next section that needs to be addressed in this manual is rest and recovery. This section will be brief but is just as important as any already covered. At *CINCINNATI*, one of your greatest challenges will be getting enough rest so that you are able to make steady gains from your lifting and running programs.

The ability to gain strength, speed, and conditioning levels is based upon the quality of work performed, not the quantity of work done. An individual's genetic makeup and sound nutrition will determine strength and size potential. The amount of exercise that one is able to recover from will also vary from athlete to athlete. You may need more time to recover than your training partner who does the same amount of exercises or runs the same distance. Everyone's recovery systems are different!

The same amount of running may be just right to stress the system of a 190 pound athlete but would be too much for the 225 pound athlete. When running the same pace, an athlete weighing 225 pounds is performing more work per running interval than the 190-pound athlete. This is why you need to follow the prescribed amount of run to test ratio to ensure you are working within your group's ability. The amount of rest that one needs to recover from a lifting bout will vary from athlete to athlete. One of the biggest factors is the amount of sleep that you get. The following are ways that you can improve your recovery:

- 1. Get on a schedule. Make sure you are in bed early enough to get seven to ten hours of sleep per night.
- 2. Take naps whenever you can fit them in during the day.
- 3. Eat properly. Exercise depletes the stored sugar in your muscles. A high carbohydrate diet will allow for more sugar to be stored in your muscles. In addition, research has indicated that within an hour after exercise you body's ability to store sugar in the muscles is at its greatest. Consequently, you should eat or drink carbohydrate within sixty minutes of training.

Exercise is a form of stress and by itself produces nothing of value. It is the *stimulus* for producing strength and conditioning results. It is *rest* that allows improvement to occur. As you gain strength or become better fit, you are performing more work. As you approach your top levels of fitness at *CINCINNATI*, you will need less work and more rest to maintain your top level of fitness. If you find yourself not gaining strength before you have reached you maximum level, you are probably over training. At this point, we will cut back on the amount of exercise. Do not add more. You are just adding to the problem at hand. See the strength staff if this occurs. *Remember that your recovery systems are different!*