WARMUP & FLEXIBILITY

WARMUP – GENERAL, DYNAMIC, & SPECIFIC

The pre-workout warm-up is an often-overlooked aspect by the athlete. A proper warm-up will prepare the athlete for the high demands of the training session or competition, whether it’s a strength training, plyometric, agility, or conditioning workout or an actual competition. An athlete will typically show up to the training session in a state of rest. Muscles, tendons, and surrounding structures are relatively stiff and tight. A well-designed warm-up will gradually and progressively increase the athletes work rate and blood circulation to these areas. These areas will now be able to withstand the demands you will eventually put on them. A proper warm-up will also lessen the risk of injury to that athlete. By properly warming up, you will be increasing the circulation and thus, increasing the core temperature of the muscle to be used. These increases elongate and relax the muscles to be used in the training session while increasing the core temperature. Simply stated, a well-designed properly executed warm-up will enhance your training session and lessen your chance of injury, due to more efficient circulation and increased core temperature.

A properly designed warm-up consists of general, dynamic, and specific exercises. A general warm-up consists of light jogging, biking, or any movement for 5-10 minutes. The sole purpose of the general warm-up period is to increase your core temperature (break a sweat). Dynamic warm-up is used to further the increases in circulation while at the same time taking muscles through a range of motion further than they are accustomed to. These activities are listed in the dynamic warm-up section. A dynamic warm-up will be progressive in nature. You will start by taking your body slowly through extended ranges of motion (Lunges, Russian March, etc.) and finish with high intensity efforts at a fast pace (Carioca, Shuffle, etc.). The warm-up generally concludes with specific exercises to the task you will be performing. Examples of these would be 80% sprinting if you were to perform a speed session or overhead squats and trap cleans in the weight room.

FLEXIBILITY – POSTWORK-OUT

Dynamic warm-up is used to prepare you for activity. Post-workout static stretching is used to increase your flexibility (i.e. Increase the length of your muscles and surrounding tissues). Static stretching exercises are used to increase range of motion of inflexible muscles and joints. Increasing the range of motion may prevent strains and sprains in both muscles and ligaments that may normally occur if and athlete has a poor range of motion. A static stretching program should take about ten minutes. Some of you may need considerably more time than ten minutes and should, by all means, put in extra time to improve their flexibility.

When flexibility is poor, movement is hindered because muscles have to work harder to bring about the same range of motion. The extra work results in a greater loss of energy and will obviously detract from one’s performance. By increasing the flexibility of the hamstrings, ankles, hips and trunk greater movement efficiency can be achieved and a great deal of energy is saved, allowing one to play harder and longer.
Static stretching should be performed at the end of the training session for approximately 10-15 minutes. Static stretches should be held for 20-30 seconds. You should have a feeling of “pull but not pain”. There is a static stretching program with descriptions listed in the following pages.

**PRE-WORKOUT**

Warm-up before all activity – it gets you ready to perform. The main purpose of the warm-up is to raise core body temperature and prepare for activity.

- Warm-up should be dynamic
- Start slowly and gradually increase the intensity.
- Use the muscles and movements you’ll use in your activity.
- You should mentally focus on your “game plan” in the warm-up.

**POST WORKOUT**

Cool-down and Static Stretching should follow all activity – it helps you relax mentally and recover physically.

- Easy striding or stationary cycling or jogging is the activities of choice.
- 10 - 15 minutes are ideal duration.
- Static stretch at this time
- Stretching should be slow with a feeling of “pull not pain”.
- Hold the stretch for 15 seconds and exhale in the final stage.
- Fluid replacement with sugar is effective to rehydrate and replace glycogen.
DYNAMIC STRETCH #1: WALKING FORWARD LUNGE

Movement: Placing both hands behind the head, take a step forward with your left foot. Maintain an upright posture in the trunk. Don’t allow the left knee to extend over the toe and the right knee should not hit the floor. Alternate left to right and repeat for 20 yards.

DYNAMIC STRETCH #2: WALKING SIDE LUNGE

Movement: Take a left lateral step about twice shoulder width. Sink on the left leg while keeping the right leg straight. Maintain an upright posture in the trunk. Return back starting position and repeat for 20 yards. Then repeat with a right step.

DYNAMIC STRETCH #3: SLOW SHUFFLE

Movement: From a squatting position. Maintain an upright posture in the trunk. Take a left lateral step that is slight wider than shoulder width. Bring the trail leg back into shoulder width position. return back to starting position and repeat for 20 yards. Then repeat with a right step.

DYNAMIC STRETCH #4: OVER AND UNDERS

Movement: Start in an upright position and with a left lateral High Knee step as if going over a fence or hurdle. After stepping over with the left leg then do the same with the right leg. Now you should back in the starting upright position. From this position and squat down as if you were going under a hurdle and Slow Shuffle step as if you were going under a fence. Slide your body underneath as if you were getting out from under a table, and return back to the starting position repeat for 20 yards. Then repeat with right step.
**New Hampshire Wildcats**

### DYNAMIC STRETCH #5: WALKING KNEE TO CHEST

**Movement:** Step with the right foot and raise the left knee as high as possible. Grasp the knee with both hands and pull to chest. While lowering the left knee, step forward and raise the right knee and continue with the same motion for 20 yards.

![DYNAMIC STRETCH #5: WALKING KNEE TO CHEST](image)

### DYNAMIC STRETCH #6: WALKING RUSSIAN MARCH

**Movement:** Start by facing forward with arms extended straight out in front. While keeping the legs straight and arms out, kick the legs as high as possible. Repeat with alternating legs for 20 yards.

![DYNAMIC STRETCH #6: WALKING RUSSIAN MARCH](image)

### DYNAMIC STRETCH #7: WALKING 1-LEGGED BALANCE

**Movement:** Start facing forward and bend at the waist maintaining one straight leg on the ground. Touch your toes while keeping the grounded leg straight and the trail leg parallel to the ground. Alternate legs with each step for 20 yards.

![DYNAMIC STRETCH #7: WALKING 1-LEGGED BALANCE](image)

### DYNAMIC STRETCH #8: INCHWORM

**Movement:** Begin as shown. With your feet in place walk out on your hands to a push up position. When your arms are under your shoulders, drop your hips to the ground. Walk your feet back up to starting position and repeat for 20 yards.

![DYNAMIC STRETCH #8: INCHWORM](image)

### DYNAMIC STRETCH #9: SPIDERMAN

**Movement:** Same as Inchworm, except when in the push-up position, with the hips dropped, step your legs one at a time forward where your feet are even with your hands. Repeat for 20 yards.

![DYNAMIC STRETCH #9: SPIDERMAN](image)
**STATIC STRETCH #1: SHOULDER AND CHEST**

1. Stand facing the edge of a door or wall.
2. Raise your arm, flex your elbow and place palm on edge.
3. Exhale, and turn away from the raised arm.
4. Hold the stretch and relax.

*Image of a person standing sideways with one arm raised.*

**STATIC STRETCH #2: HIP AND GLUTEALE**

1. Sit on floor with legs extended.
2. Cross left foot over right leg and slide heel toward buttock.
3. Place right elbow on outside of left knee.
4. Exhale and look over left shoulder while turning trunk.
5. Gently push knee with right elbow.
6. Hold the stretch and relax.

*Image of a person sitting on the floor with one knee crossed over the other.*

**STATIC STRETCH #3: HIP FLEXOR**

1. Stand facing box/bench ~16-24 inches in height.
2. Place left foot on box with hips aligned parallel to box.
3. Exhale and lean hips into box.
4. Front leg should have weight on it and heel of the trail leg must remain on the floor.
5. Both feet should be pointed straight ahead.
6. Hold the stretch and relax.

*Image of a person standing on a box with one foot steady and the other being pushed into the box.*

**STATIC STRETCH #4: CALF**

1. Stand upright 2 or 3 steps from wall.
2. Bend one leg forward and keep the opposite leg straight.
3. Place hands on wall and lean forward with rear foot down, and flat, while keeping hips parallel to wall.
4. Hold the stretch and relax.

*Image of a person leaning forward with one foot flat against a wall.*

**STATIC STRETCH #5: ADDUCTOR**

1. Assume a full squat position with feet ~12 in. apart and toes pointed out slightly.
2. Keep heels flat on the ground.
3. While exhaling, place elbows on the inside of knees and push knees out.
4. Hold the stretch and relax.

*Image of a person in a squat position with elbows on the knees.*
STATIC STRETCH #6: HAMSTRING
1. Lie flat on back with legs flexed.
2. Place heels close to buttock, inhale and extend one leg upward. KEEP HIPS IN LINE WITH TORSO!
3. Grasp underneath of leg and exhale while slowly pulling leg toward torso, while keeping leg straight as possible.
4. Hold the stretch and relax.

STATIC STRETCH #7: QUADRICEP
1. Lie on your side and flex one knee toward buttock.
2. Exhale, grasp ankle and pull toward buttock
3. Keep both knees in line while stretching each other.
4. Allow hips rotate backward.
5. Hold the stretch and relax.

STATIC STRETCH #8: LUMBAR AND GLUTEAL
1. Lie flat on back with legs straight.
2. Inhale, bring left knee to chest, keep head flat on floor.
3. Exhale, grasp shin and pull knee into chest.
4. KEEP HIPS IN LINE WITH TORSO!
5. Hold the stretch and relax.

STATIC STRETCH #9: SHOULDER ROTATORS
1. Stand upright with feet spread apart.
2. Grasp dowel/pole/towel with palms facing you.
3. Straighten and raise arms overhead. Rotate dowel around shoulder joint til it is behind you.
4. Palms will now be facing the other direction
5. Repeat ~10 times.
6. Remember to breath during stretch.

STATIC STRETCH #10: HAMSTRING
1. Stand facing a bench/box and place one heel on box.
2. Keeping a slight bend in the supporting leg, BEND FORWARD AT THE WAIST, NOT THE BACK.
3. Lower trunk to thigh and try to put your chest on your knee, and not your head.
4. Hold the stretch and relax.
5. Repeat ~4 times.
**STATIC STRETCH #11: GROIN/ADDUCTOR**

1. Sit upright on the floor.
2. Flex your knees and bring the heels and soles of your feet together toward your buttock.
3. Place your elbows on the inside portion of both knees.
4. Exhale, and slowly push your legs to the floor.
5. Hold the stretch and relax.

**STATIC STRETCH #12: PIRIFORMIS**

1. Lie on your back with your legs extended.
2. Flex one knee, raise it to your chest, and grasp it with the opposite hand.
3. Exhale and pull your knee across your body to the floor.
4. Keep elbows, head, and shoulders flat on floor.
5. Hold the stretch and relax.

**STATIC STRETCH #13: HIP/GLUTEAL**

1. Lie flat on back with your knees flexed out to your sides.
2. Lift your leg over your other leg and hook leg at knee.
3. Exhale, and use your heel to press your leg to floor while keeping your elbows, head and shoulders flat on floor.
4. Hold the stretch and relax.
5. Repeat on other side.

**STATIC STRETCH #14: SHOULDER/UPPER BACK**

1. While standing upright, interlock fingers and raise hands above your head.
2. While keeping arms straight, let shoulder blades relax and allow shoulders to rotate backwards.
3. Exhale and lean over to the side.
4. Hold the stretch for 10 sec. and relax. Repeat on other side.

**STATIC STRETCH #15: UPPER BACK**

1. Stand with your feet together, about three feet from a squat rack with bar at hip to shoulder height.
2. Keeping your arms and legs straight, flex at the hips, flatten your back, and grasp bar with both hands.
3. Exhale and press down on bar to arch your back.
4. Hold the stretch and relax.
PARTNER STATIC STRETCH #1: HAMSTRING

1. Athlete lies flat on back with arms to the sides. Partner shraddles the athlete’s right leg and kneels down.
2. Holding the left leg of the athlete at the heel and the knee, the partner stretches the leg to the point of mild discomfort.
3. Partner pushes leg forward and tells athlete to “hold and don’t let me move the leg”. Hold this position for 5 sec.
4. The athlete relaxes and the partner pushes the leg slightly more forward and held in this position for 30 sec.

PARTNER STATIC STRETCH #2: CHEST/SHOULDER

1. Athlete kneels down with arms straight out from their shoulders. Partner stands directly behind the athlete.
2. Holding the athlete’s forearms, the partner pulls the arms back until the athlete feels a stretch of mild discomfort.
3. Partner pulls arms back and tells athlete to “hold and don’t let me move your arms”. Hold this position for 5 sec.
4. The athlete then relaxes and the partner pulls the arms slightly more back and held in this position for 30 sec.

PARTNER STATIC STRETCH #3: QUADRICEP/HIP FLEXOR

1. Athlete lays flat on stomach. Partner “sits” facing athlete’s legs and grabs the upper quad of the athlete’s leg.
2. Partner pulls up on the athlete’s thigh, then tells the athlete to “hold and don’t let me move your leg”. Hold this position for 5 sec.
3. The athlete then relaxes and the partner pulls the leg slightly more up and held in this position for 30 sec.
4. Repeat on other side.

PARTNER STATIC STRETCH #4: GLUTEAL/HAMSTRING/LUMBAR

1. Athlete lays flat on back. Partner kneels in front of athlete and holds athlete’s foot and knee.
2. Partner pushes athlete’s thigh slightly forward, then tells the athlete to “hold and don’t let me move your leg”, as partner pushes against athlete. Hold this position for 5 sec.
3. The athlete then relaxes and the partner pushes the leg slightly more forward and held in this position for 30 sec.
4. Repeat on other side.

PARTNER STATIC STRETCH #5: PIRIFORMIS

1. Athlete lays flat on back and assumes piriformis stretch position. Partner kneels in front of athlete straddling the underneath leg.
2. Partner places right hand on athlete’s left shoulder and pushes down while slightly moving the top leg forward toward chest. Hold this position for 15 sec.
3. Hold this position for 10 sec, then relax and repeat process again. Repeat on other side.
TORSO TRAINING

The torso area, abdominal/low back or “core” is one of the most important components of the athletic body. This muscular region also happens to be one of the most overlooked and under worked regions of the body. The waist and abdominal area contain about one-third of total body weight. The muscles of the torso are essential in maintaining balance, assisting in proper and efficient movement, preventing injury, and most importantly in the transfer of power. A strong core is the anchor for explosive movements. A strong torso allows for greater freedom of movement, more power in movement, fewer extraneous movements, and conservation of movement through efficient movement. It all begins with a strong torso. Without a strong torso, you won’t be as fast, explosive, agile, or powerful as you could be. The following pages give routines for general fitness, strength and power, and stability. You are encouraged to follow these programs and become a better athlete. Remember to incorporate all of them into your program and not just perform the same routine over and over.

Torso work should be done at the beginning of a workout; this is done to place an emphasis on torso training. Many times the core is trained at the end of the workout. The problem with training the core last is that most people hurry through the core training lacking the time it needs to be trained. Torso training should be made a priority and by performing the torso work first, it becomes a priority.

When training the torso slow controlled movements without bouncing is necessary. Keep the abs tight throughout the exercises will allow the torso to become stronger faster and more efficiently. The key to torso training is to teach the abdominal area of the torso to be contracted during movement. The ultimate goal is to teach the torso to be strong and activated during your sports activity.

The torso training is broken up into three different levels. The first level is conventional floor exercises they start with just your body weight and move into weighted exercises. During the weighted exercises you are encouraged to progressively overload by adding more weight every time the torso is trained. The second level of torso training includes the use of Med-Balls and Swiss (Phyisio) Balls. The third level of torso training is for the advanced athlete. If you have been training the torso consistently for 6-8 weeks then progressing to level 3 would be appropriate.

**POINTS OF CONCENTRATION:**

1. Torso work should be done at the beginning of a workout.
2. Use slow controlled movements without bouncing.
3. Keep torso tight and activated throughout the exercises.
4. Use and increase weight when needed.
5. Progression; work the torso harder every time you train.
<table>
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<tr>
<th>Exercise</th>
<th>Movement</th>
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<tbody>
<tr>
<td><strong>CRUNCHES</strong></td>
<td><strong>Movement:</strong> Lay down on floor so back is flat and knees are flexed to 90 degrees in the air. Place hands behind the head. Contract the abs and lift the shoulders and upper body off the floor until elbows touch the knees. Hold for one count and return to starting position. Repeat immediately.</td>
</tr>
<tr>
<td><strong>CROSSOVER CRUNCHES</strong></td>
<td><strong>Movement:</strong> Assume a crunch position as described above. Cross the left over the right. Contract abs and raise right shoulder until right elbow meets left knee. Return to starting position. Repeat immediately. Contract abs and raise left shoulder until left elbow meets right knee. Return to starting position. Repeat sequence immediately.</td>
</tr>
<tr>
<td><strong>BICYCLE CRUNCHES</strong></td>
<td><strong>Movement:</strong> Lie on back. Flex hips and knees to 90 degrees. Raise shoulder blades several inches off the floor. Place hands behind the head. Extend the left knee while simultaneously driving the right knee toward the left shoulder. Touch the right knee to the left shoulder. Immediately repeat to the other side.</td>
</tr>
<tr>
<td><strong>BRIDGE</strong></td>
<td><strong>Movement:</strong> Lie on back. Flex knees to 90 degrees. Place feet flat on floor, shoulder width apart. Place arms on floor alongside hips. Contract abs, low back, and gluteal muscles and lift hips off the floor. Keep feet, shoulders, and upper back in contact with the floor. Knees, hips, and shoulders should be aligned in a straight line. Keep body weight off the neck. Hold for designated period of time.</td>
</tr>
<tr>
<td><strong>BRIDGE W/ LEG EXTENDED</strong></td>
<td><strong>Movement:</strong> Assume the working position described in the Bridge. Extend one-leg 45 degrees (so both upper legs are parallel). Hold for designated time. Repeat with alternate leg.</td>
</tr>
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</table>
### HIP THRUST

**Movement:** Lie on your back. Raise legs off of the ground so they are pointing to the ceiling and are perpendicular to the floor. Place your hands by your side. Isolate your abs and thrust your legs toward the ceiling, hold at the top. Slowly lower your hips and repeat.

### LEG SCISSORS (LEFT/RIGHT)

**Movement:** Lie flat on back with legs extended and arms extended out to sides of body. Elevate right leg approximately 36 inches off the ground. Lower right leg and elevate left leg. Repeat for desired number of reps without either foot touching the ground. (UP/DOWN) – up and down can be done as a variation to left and right. You can also use different heights as a variation 12, 24, 30 or 36 inches off the ground.

### SUITCASE CRUNCHES

**Movement:** Lie on back with legs flexed to 90 degrees and feet flat on floor. Place hands behind head. Contract abs and simultaneously raise upper body and legs so that elbows meet knees in a crunch position. Simultaneously lower upper and lower body to the starting position. Repeat immediately.

### LEG RAISES

**Movement:** Lie on back. Arms should be straight, extended alongside hips. Do not tuck hands under butt. Contract abs, keeping low back from arching, and slowly raise feet off of ground to a position of 24 – 36 inches. Hold for a one count. Slowly lower feet back to ground and repeat immediately.

### TOE TOUCH

**Movement:** Lie on your back. Raise legs off of the ground so they are pointing to the ceiling and are perpendicular to the floor. Focus eyes on feet and extend arms towards the feet. Contract abs and raise the upper body, reaching towards the feet. Tap the feet and return to the starting position. Repeat immediately.
## RUSSIAN TWIST

**Movement:** Lie on back. Flex knees 90 to 120 degrees. Place feet on the floor. Raise upper body off the ground 30 degrees. Extend arms (with weight in hand) so they are parallel with upper leg. Twist the upper body to the left until weight is near the floor. Immediately twist the upper body to the right. Repeat the rotation until all repetitions have been completed.

## FRONT STABILITY

**Movement:** Assume a pushup position with elbows on the floor. Hands, elbows, shoulder should make a 90 degree angle and be shoulder width apart. Elbows should be directly under shoulders. Feet should be up on toes with legs together and pelvis tucked. Raise hips off the ground so that the shoulders, hips, and feet are aligned. Hold for designated time. Do not arch back or let torso rise to high or drop.

## SIDE STABILITY

**Movement:** Lie on side of body so that one leg is on top of the other. Raise hips off the ground so that weight is supported on elbows and sides of feet. Elbow should be directly under the shoulder. Top arm should rest on your side. Body should be in perfect alignment with top shoulder, hip, and foot forming a straight line. Do not allow torso to drop or shoulders and hips rotate out of either plane. Hold for designated time and repeat on other side.

## BACK STABILITY

**Movement:** Lie on back with elbow directly under shoulder and weight resting on it. Contract abs, low back, butt, and hamstrings and raise hips off the ground. Head should be up. Weight should be supported on the elbows and heels of feet. Do not let the butt touch the ground. Hold for designated time.

## SUPERMAN

**Movement:** Lie on the floor in a prone position with arms extended overhead. Simultaneously raise upper body and legs off the floor. Hold for a two count. Return to starting position. Repeat immediately.
MED-BALL PULLOVER & TOE TOUCH

Movement: Lying on your back with left knee flexed at 90 degrees, and right leg flat on the floor. Keep the left leg straight and right foot on the ground. Extend your arms over your head holding the med-ball. Simultaneously lift the upper body and straight leg touching the med-ball to your left foot by raising your shoulders off the ground. Return to the starting position and repeat with other side.

MED-BALL BENT LEG V-UPS

Movement: Lying on your back with left knee flexed at 90 degrees, and right leg flat on the floor. Keep the left leg straight and right foot on the ground. Extend your arms over your head holding the med-ball. Simultaneously bring your knees into your chest and lift your shoulders off the ground touching your feet with the med-ball, hold for 1 second. Slowly return to the starting position and repeat.

MED-BALL SITUP & TOSS

Movement: This exercise needs a partner. In a sit-up position place your feet flat on the ground and your knees at 90 degrees. Extend your arms over your head holding the med-ball. Lifting your shoulders off the ground, toss the med-ball to your partner. Your partner will quickly toss back the med-ball and you will slowly return to the starting position and repeat.

MED-BALL SIDE TOSS

Movement: This exercise needs a partner. In a sit-up position place your feet flat on the ground and your knees at 90 degrees. Sitting perpendicular toss the med-ball sideways to your partner. Your partner will quickly toss back the med-ball and you will quickly return to the starting position and repeat.

MED-BALL LYING TRUNK TWIST

Movement: Lie face up and place a medicine ball between your feet. Extend arms to your side and anchor them. Extend legs into the air. Without lifting your shoulders lift off the ground, slowly lower legs to the floor on the left side, then reverse the movement to the right.
### Swiss Ball Crunch

**Movement:** Lie face up with ball under hips, low back and mid back. With feet on floor, bend legs to 90 degrees. Lift mid back off the swiss ball and hold for 1 second. (Low back and hips remain touching the ball the whole time.)

### Swiss Ball Bridge

**Movement:** Head and shoulder blades rest on swiss ball and the knees are directly over your feet creating a 90-degree angle at the knee joint. With your hips extended, slowly lower your glutes toward the floor keeping the knees over-top of the ankles hold for one second then lift the hips up and hold for 1 second.

### Swiss Ball Reverse Crunch

**Movement:** Lie face up with your arms extended to your side. Bend your legs to 90 degrees and hold the swiss ball between feet. With control, lift tailbone off the ground, bringing pelvis toward your chest. Release and repeat.

### Swiss Ball Pull-Ins

**Movement:** In a face-down position, place your feet and shins on the swiss ball and your palms on the floor, hands aligned under shoulders. Bend legs, pulling the ball toward your head. Continue bending your knees until your thighs are close to your chest and tailbone points toward ceiling. Push your legs out and then repeat.

### Swiss Ball Forward Roll

**Movement:** In a face-down position, bend arms and place both forearms on ball, centering it under your chest. Extend legs and position toes on floor wider than your hips. With abdominals contracted, slowly roll ball forward and hold for 1 second. Bring the swiss ball back to original position.
### Week: 1 - 2

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<th>Day 3</th>
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<td><strong>Bicycle Crunches</strong></td>
<td><strong>Crossover Crunch</strong></td>
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<td>X 20 BW</td>
<td>2 X 20 BW</td>
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<tr>
<td><strong>Leg Raises</strong></td>
<td><strong>Bridge</strong></td>
<td><strong>Leg Scissors (U/D)</strong></td>
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<td>X 10 BW</td>
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<td><strong>Leg Scissors (L/R)</strong></td>
<td><strong>Toe Touches</strong></td>
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<td>X 10 BW</td>
<td>X 20 BW</td>
<td>45 sec.</td>
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<td><strong>Suitcase Crunches</strong></td>
<td><strong>Russian Twist</strong></td>
<td><strong>Side (Left) Stability</strong></td>
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<td>X 20 BW</td>
<td>X 20 BW</td>
<td>2 X 20 BW</td>
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<td><strong>Supermans</strong></td>
<td><strong>Hip Thrust</strong></td>
<td><strong>Side (Right) Stability</strong></td>
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<td>X 15 BW</td>
<td>X 20 BW</td>
<td>45 sec.</td>
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BW = Body Weight

### Week: 3 - 4

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<td><strong>Crunches</strong></td>
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<td>2 X 25 BW</td>
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<td><strong>Front Stability</strong></td>
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<tr>
<td>2 X 10 BW</td>
<td>2 X 15 BW</td>
<td>2 X 60 sec.</td>
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<tr>
<td><strong>Leg Scissors (L/R)</strong></td>
<td><strong>Bridge w/Leg Ext.</strong></td>
<td><strong>Side (Left) Stability</strong></td>
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<tr>
<td>2 X 10 BW</td>
<td>2 X 10 BW</td>
<td>2 X 60 sec.</td>
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<tr>
<td><strong>Hip Thrust</strong></td>
<td><strong>Suitcase Crunches</strong></td>
<td><strong>Side (Right) Stability</strong></td>
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<tr>
<td>2 X 20 BW</td>
<td>2 X 25 BW</td>
<td>2 X 60 sec.</td>
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BW = Body Weight

### Week: 5 - 6

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<td><strong>Hip Thrust</strong></td>
<td><strong>Swiss Ball Bridge</strong></td>
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<td>3 X 20 WT</td>
<td>3 X 20 BW</td>
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<td><strong>Bent Leg V-Ups</strong></td>
<td><strong>Ball Reverse Crunch</strong></td>
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<td>3 X 10 MB</td>
<td>3 X 20 SB</td>
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<td><strong>Side Toss</strong></td>
<td><strong>Lying Trunk Twist</strong></td>
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<tr>
<td>3 X 10 MB</td>
<td>3 X 10 MB</td>
<td>3 X 10 SB</td>
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<tr>
<td><strong>Superman</strong></td>
<td><strong>Front Stability</strong></td>
<td><strong>Ball Forward Roll</strong></td>
</tr>
<tr>
<td>3 X 15 BW</td>
<td>90 sec.</td>
<td>3 X 10 SB</td>
</tr>
</tbody>
</table>

BW = Body Weight

### Week: 7 - 8

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Leg Scissors (L/R)</strong></td>
<td><strong>Swiss Ball Bridge</strong></td>
<td><strong>Russian Twist</strong></td>
</tr>
<tr>
<td>2 X 30 BW</td>
<td>2 X 30 SB</td>
<td>2 X 30 WT</td>
</tr>
<tr>
<td><strong>Sit-Up &amp; Toss</strong></td>
<td><strong>Side Toss</strong></td>
<td><strong>Swiss Ball Pull-Ins</strong></td>
</tr>
<tr>
<td>2 X 15 MB</td>
<td>2 X 10 MB</td>
<td>2 X 20 SB</td>
</tr>
<tr>
<td><strong>Front Stability</strong></td>
<td><strong>Side (Left) Stability</strong></td>
<td><strong>Ball Reverse Crunch</strong></td>
</tr>
<tr>
<td>60 sec.</td>
<td>2 X 60 sec.</td>
<td>2 X 20 SB</td>
</tr>
<tr>
<td><strong>Superman</strong></td>
<td><strong>Side (Right) Stability</strong></td>
<td><strong>Ball Forward Roll</strong></td>
</tr>
<tr>
<td>2 X 20 BW</td>
<td>2 X 60 sec.</td>
<td>2 X 15 SB</td>
</tr>
</tbody>
</table>

BW = Body Weight

### Week: 9 - 10

<table>
<thead>
<tr>
<th>Day 1</th>
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<th>Day 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Toe Touches</strong></td>
<td><strong>Bridge w/Leg Ext.</strong></td>
<td><strong>Suitcase Crunches</strong></td>
</tr>
<tr>
<td>2 X 30 WT</td>
<td>3 X 25 BW</td>
<td>3 X 40 BW</td>
</tr>
<tr>
<td><strong>Lying Trunk Twist</strong></td>
<td><strong>Side Toss</strong></td>
<td><strong>Sit-Up &amp; Toss</strong></td>
</tr>
<tr>
<td>2 X 15 MB</td>
<td>2 X 15 MB</td>
<td>3 X 20 MB</td>
</tr>
<tr>
<td><strong>Front Stability</strong></td>
<td><strong>Ball Reverse Crunch</strong></td>
<td><strong>Side (Left) Stability</strong></td>
</tr>
<tr>
<td>2 X 60 sec.</td>
<td>2 X 25 SB</td>
<td>2 X 90 sec.</td>
</tr>
<tr>
<td><strong>Superman</strong></td>
<td><strong>Lying Trunk Twist</strong></td>
<td><strong>Side (Right) Stability</strong></td>
</tr>
<tr>
<td>2 X 30 BW</td>
<td>2 X 30 MB</td>
<td>2 X 90 sec.</td>
</tr>
</tbody>
</table>

BW = Body Weight

### Week: 11 - 12

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Swiss Ball Pull-Ins</strong></td>
<td><strong>Swiss Ball Bridge</strong></td>
<td><strong>Swiss Ball Crunch</strong></td>
</tr>
<tr>
<td>3 X 25 SB</td>
<td>3 X 30 SB</td>
<td>3 X 30 SB</td>
</tr>
<tr>
<td><strong>Side Toss</strong></td>
<td><strong>Bent Leg V-Ups</strong></td>
<td><strong>Lying Trunk Twist</strong></td>
</tr>
<tr>
<td>3 X 15 MB</td>
<td>3 X 10 MB</td>
<td>3 X 20 MB</td>
</tr>
<tr>
<td><strong>Leg Scissors (L/R)</strong></td>
<td><strong>Front Stability</strong></td>
<td><strong>Ball Forward Roll</strong></td>
</tr>
<tr>
<td>3 X 20 BW</td>
<td>3 X 90 sec.</td>
<td>3 X 20 SB</td>
</tr>
<tr>
<td><strong>Leg Scissors (U/D)</strong></td>
<td><strong>Back Stability</strong></td>
<td><strong>Superman</strong></td>
</tr>
<tr>
<td>3 X 20 BW</td>
<td>3 X 90 sec.</td>
<td>3 X 25 BW</td>
</tr>
</tbody>
</table>

BW = Body Weight

WT = Weight

MB = Med-Ball

SB = Swiss Ball
STRENGTH TRAINING

This program uses a multiple set approach with periodization. Form and rate of repetition is highly important. When performing any exercise, great form is needed for safety, and to maximize your workout. The rate of repetition is the speed in which you do the exercise. Lifting the weight at a speed where one can do the exercise through a full range of motion, and under total control. To optimize your lifting, we lift 4 seconds during concentric contraction (lifting the weight) and 4 seconds during eccentric contraction (lowering the weight), with a 1 second pause at both top and bottom of the exercise.

The multiple set approach is used to optimize the your Time, Effort, and Athletic Potential. The sets and reps are (RM’s) repetition maximum, so the you can achieve total muscular fatigue. If it is one set or four sets, the weight used for the reps should be sufficient enough so that the last rep in the set is the final rep the you can do with proper form and speed. So if the sets and reps are 3 X 8 (RM), then after adequate warm up, three working sets are performed. You chooses a weight in which the 8 th rep of each working set is the last rep that can be accomplish. This means you achieve fatigue on each working set.

With the periodization format in this program, it is necessary to monitor the sets and reps chart. The sets and reps do change from week to week. When the reps move down, make sure you adjust the weight accordingly. If you do not get the reps then you are too heavy or too light. If you choose a weight that is too light do the extra reps and adjust the weight for the next set. If the weight is too heavy do as many as you can and take weight off for the next set. However, since this variation in reps is designed to force you to go heavy, do not adjust down by more than a few pounds. Use the recording sheet so you can monitor the weight you are lifting for each set and each rep. Even though the periodization forces you to go heavy, not under any circumstance do you sacrifices your form or rep speed. Make sure you are getting all of the sets, reps and you are going to muscle fatigue.

POINTS OF CONCENTRATION

1. The most important part of the workout is rest
2. I want you to be fresh for every rep, set, and workout.
3. You are to perform the reps in 8 seconds with no rest in between.
4. The rest between sets will be 2-3 minutes
5. 48 hours will separate each workout.
EXERCISE DESCRIPTION

Not all exercises are listed in the Exercise Descriptions, so do the best you can. If you don’t know an exercise, then call me. And remember, when performing any lift, form is very important. Proper form will allow you to optimize your workout and decrease the chance of injury in any exercise. When you are performing an exercise, lower the weight at the same speed as you lifted the weight. We lift the weight (concentric contraction) in 4 seconds and lower the weight (eccentric contraction) in 4 seconds with 1-second pauses at the top and bottom of every repetition. Help yourself and the TEAM by not cutting corners, do all of the exercise correctly and with 110% intensity.

OLYMPIC Lifts: Cleans, Snatches, Overhead Presses and Jerks
These are Total Body lifts and must be taught in order for you to successfully and safely perform them. Anyone who has not been taught proper technique or supervised by a Strength and Conditioning Coach should NOT be attempting these lifts at all!

BACK SQUAT
STARTING POSITION: Position yourself under the bar so your trapezius muscles and shoulders are in contact with the bar. Grab the bar with your hands spaced evenly apart so the weight will be evenly distributed when you raise the bar off of the rack. Your knees should be slightly bent, your chest should be out, your back straight, and your hips positioned directly under the bar. Slowly extend your knees and lift the bar off of the rack. TAKE ONLY ONE STEP BACK! Position your feet slightly wider than shoulder width apart, with your toes pointing SLIGHTLY outward. If your legs are not wide enough apart or if your toes are pointing straight forward you are putting unnecessary stress on your knees.

MOVEMENT: Begin lowering the weight by using your hips. Remember to maintain a straight back, big chest, and hold your head at a constant level looking directly ahead. Lower the weight slowly and with control. Continue lowering the weight until your thighs are at a parallel position with the floor. After reaching this position, pause momentarily and then slowly raise the weight by using your hip muscles as much as possible until you are once again in the standing position. Try to imagine pushing your feet through the floor. This push should be forceful, yet under control. Be sure to come to the upright position slowly. In other words, the weights should not rattle when you reach the top. Pausing at the bottom of this exercise is extremely important to avoid damage to connective tissue in the knee, and to obtain maximal benefit. By not pausing, you are more likely to utilize momentum, which is not desirable for maximal strength gains.

KEY POINTS: The most important thing to remember with this exercise, as with all exercises is CORRECT FORM! The exercise should be done slowly and with total control. This is not only to avoid injury, but also to provide for maximal gains in muscle strength. Secondly, be sure to lower yourself to a complete parallel position. By not going down to a parallel position, you are over-emphasizing the quadriceps at the expense of the hamstrings, eventually causing knee and hamstring injuries. Going to parallel also helps develop hip range of motion and flexibility. The back squat exercise is definitely the most beneficial for developing lower body strength. With proper technique and intensity, you can strengthen your entire lower body with this one exercise.

FRONT SQUAT
STARTING POSITION: There are two grips for this exercise: 1) Place your hands up by your shoulders, with your palms up. Keep your hands in this position and grab the barbell. Your elbows should be up, and your arms should remain parallel with the floor. The barbell should be resting on the front of your shoulders and your upper chest. 2) Approach the barbell and allow it to come in contact with your shoulders and upper chest. Now cross your arms and grip the top of the barbell. Once again, keep your elbows up and arms parallel to the floor. The barbell should be resting on the front of your shoulders and upper chest. Space your feet shoulder width apart, and point your toes out slightly.
MOVEMENT: Slowly squat down by bending at the hips and knees. Lower the weight slowly and with control. Continue lowering the weight until your thighs are at a parallel position with the floor. After reaching this position, pause momentarily and then slowly raise the weight by using your hip muscles as much as possible until you are once again in the standing position. Try to imagine pushing your feet through the floor. This push should be forceful, yet under control. Be sure to come to the upright position slowly. In other words, the weights should not rattle when you reach the top. Pausing at the bottom of this exercise is extremely important to avoid damage to connective tissue in the knee, and to obtain maximal benefit.

KEY POINTS: Remember to always squat down until you thighs are parallel with the floor. Also try to keep your feet flat on the floor throughout the entire movement. If you have a problem with keeping your heels on the floor, try pointing your toes upward to force the heel down. Keep your chest out, and your back straight. Do not look upwards or downwards, only straight ahead. Lastly, remember to keep your elbows up and your arms parallel with the floor.

OVERHEAD SQUAT
STARTING POSITION: This variation is performed similar to the above except that the bar is held overhead with a snatch (wide) grip. The bar should be held approximately 4 - 6 inches above your head and over the ears with the arms being completely straight.

MOVEMENT: Perform the exercise by lowering yourself into the full squat position in the same manner as you would in the other squat variations. As you lower yourself, strive to keep you torso upright, the arms locked and your eyes focused straight ahead of you.

KEYS POINTS: When you are lowering yourself into the bottom position, it is extremely important that you keep the bar directly above the ears. This will help you keep your torso upright and balanced. The most common mistake is to let the bar float back behind you.

LUNGES
STARTING POSITION: Position yourself under a barbell so it rests on your trapezius and posterior shoulders. Grasp the bar evenly with your hands in a comfortable position. You should be standing straight up, looking forward with your feet shoulder width apart, toes pointed straight ahead.

MOVEMENT: Step forward with your dominant leg, taking a long but comfortable step. Land with your heel first, toes pointed forward. Your hips should be lowered until the thigh of the front leg is parallel with the floor. Your front knee should be directly over your toes. Don’t let your knees go in front of your toes. This puts a great amount of pressure on the knees. During the step forward your upper torso should be upright with your chest held high and your back staying flat. The back knee of your leg will be slightly flexed. Be sure not to let your back knee touch the floor. When your thigh is parallel, push off the floor with your front leg until you are in a standing position again. Repeat this movement with the opposite leg. One repetition is the completion of the lunge with both legs.

KEY POINTS: Be sure you step far enough forward, as to allow your front thigh to reach parallel and the front knee to remain over your toes. Many athletes make the mistake of not stepping far enough forward. This causes the knee to move in front of the toes and the front thigh doesn’t reach parallel. If you find this happening, you need to step further forward. Lastly, concentrate on staying upright throughout the entire movement. Leaning forward put pressure on the lower back.

SINGLE LEG BENCH SQUAT
STARTING POSITION: Start position is the same as the lunge except that the feet are split and fixed, but one foot will be up on a bench behind you. The other foot is placed out in front of you where your heel is in front of you toes.

MOVEMENT: A repetition is completed by lowering and raising yourself through a full range of motion. A set is completed when the prescribed number of repetitions are completed on both legs.

KEY POINTS: Similar to the lunge, the forward shin should remain relatively perpendicular to the floor during the movement, meaning the knee should not go out beyond the toes.
**SINGLE LEG SQUAT**

**STARTING POSITION:** Start by standing on top of a box or step that is approximately 12 – 18 inches in height, with one foot on the box and the other off to the side.

**MOVEMENT:** Begin movement by lowering yourself as you would in a regular squat while keeping the foot in full contact with the box. The other leg will have to be flexed in front of you to keep it from hitting the ground. Your torso should remain upright and your arms in front of the body so they can be used as a counterbalance.

**KEY POINTS:** In the beginning this will be a very difficult exercise to do, so to progress into the exercise more steadily you can is to use a heel touch at the bottom. Once the heel has come in contact with the ground lightly push off then return to the upright position by extending the hips to go back up. You’re your strength improves the heel touch can be discarded.

**LEG PRESS**

**STARTING POSITION:** Position yourself in the leg press machine, lying on your back, placing your feet on the platform shoulder-width apart. Be sure that your toes are positioned slightly over the top of the platform, keeping only your heels and the balls of your feet in contact with the platform. Do not push with the toes, as this puts unnecessary stress on the knee joints. Pressing with the heels and balls of your feet allows all of the weight to be channeled through your hips and thighs.

**MOVEMENT:** Slowly lower the weight until your knees are flexed 90 degrees (your thighs should be perpendicular with the floor). When you reach this position, pause momentarily, and then attempt to push your feet through the platform, thus raising the weight. Continue raising the weight until your knees are ALMOST at full extension. Do not fully extend your knees at the top of the exercise, as this also puts excessive strain on the tendons and ligaments of the knee. Pause momentarily, and then perform the next repetition.

**KEY POINTS:** The purpose of this exercise is to maximally overload your quadriceps and to a lesser degree the hamstrings and the gluteal muscles. The lower back is fully supported by the machine, which provides a great degree of safety. This safety feature allows you to use a great deal of weight as compared to other lower body exercises. You may find that you are capable of lifting much more weight than you think you can with this exercise. Try to experiment, but at the same time, do not forget proper form, and perform the exercise with control to avoid needless injuries.

**STEP UPS**

**STARTING POSITION:** Place a barbell on your trapezius and posterior shoulders in the same manner as if you are squatting. Stand a few inches in front of a box or a flat bench. Keep your chest held high and your back flat.

**MOVEMENT:** Step up onto the box with your lead leg, placing your entire foot flat on top of the box. Your opposite leg should follow. When both legs are on the box, pause for one second, then step down. Repeat this movement leading with your opposite leg. One repetition is performed when you have completed this movement with both legs. Be sure to keep your back flat and chest high during the entire movement.

**KEY POINTS:** Use a box or bench, tall enough, so that the thigh of the leg you are stepping with is parallel with the floor when you place your foot on it. Always remember the leg that should be doing all of the work is the lead leg. Be sure to pull yourself up onto the box with your lead leg when stepping. Do not use your back leg to push off the floor, propelling yourself onto the box. This takes the stress off the lead leg, diminishing the effectiveness of the exercise.

**RDL – ROMAINAN DEAD LIFT**

**STARTING POSITION:** Grasp the bar just outside the thighs (similar to a clean grip) and position the feet straight ahead at shoulder width. Looking straight ahead of you, the shoulders will be pulled back, the chest out and the knees slightly bent.

**MOVEMENT:** Take a breath to inflate the chest, keep the torso tight and push the hips backward while flexing (or bending over) the hips. You torso should stay tight as you lower the bar to mid-shin height, meaning that at no time should the lower back be in the rounded position. After you have reached the mid-shin height raise the bar by
extending the hips (pushing the hips forward) back to the starting position. The position of the bar should always be as close to the body as possible, where contact with the thighs and shins being preferred.

KEY POINTS: In start position, the shoulders are to be pulled back so as the shoulder blades are “pinched” together. This position should be maintained throughout the exercise. As you descend think about “putting your sternum” on the ground, this will keep your back flat and your lower back from rounding. When ascending, try to “feel” as if you are pulling the weight by contracting your hamstring, this will put most of the emphasis on the hamstring, and not the lower back.

**SLRDL – SINGLE LEG ROMAINAN DEAD LIFT**

**STARTING POSITION:** Same as the Romanian Dead Lift

**MOVEMENT:** All the same movements apply to this exercise as the RDL, but in this exercise you will be balancing on one leg while doing the exercise. Transfer your weight to one foot, keeping a slight bend in the knee lower yourself by bending at the hip. The “free” leg should be used as a counterbalance so it should be swung behind you being kept relatively straight as the weight is lowered in front of you.

KEY POINTS: This exercise is difficult because of the balance component and the proper torso positioning. Always strive to keep the shoulders from rounding forward and this will keep the lower back and torso in proper alignment. The balance component will always be an issue every time you use a different weight, so begin with relatively lightweight and gain confidence with your balance before progressing up in weight.

**GLUTEHAM RAISE**

**STARTING POSITION:** Lay face down in the gluteham apparatus. The pad should be under your thighs. Your upper torso should be completely over the edge of the pad. Your feet should be placed securely under the foot holders. Your back should be straight, shoulders back, chest out and your head in line with your upper torso. Your hands should be crossed on your chest.

**MOVEMENT:** Bend at the hips and slowly lower the upper torso until it is perpendicular with the floor. Keep your back flat, chest out and head in line with your torso. When you reach the bottom of the movement, pause momentarily. After pausing, bend at the knees, raising yourself up and beyond the starting position. Raise yourself until your upper torso is as close to perpendicular with the floor as you can get it. Pause for one second, then slowly lower yourself down to the bottom of the movement and continue the movement.

KEY POINTS: Perform this exercise under control at all times. Do not bounce at the bottom of the movement. Always pause at the bottom and the top of the movement. Eliminate momentum from the performance of the movement.

**MANUAL GLUTEHAM RAISE**

**STARTING POSITION:** This exercise is very similar to the one above, but is done without any equipment except the use of a partner. Start by sitting on your knees with about 4 – 6 inches between them and your partner holding your ankles down.

**MOVEMENT:** You will slowly lower yourself, under control, down towards the ground. Once you reach the ground you will then “pull” yourself back up to the upright position by use of your hamstrings.

KEY POINTS: This is a very difficult to perform perfectly and requires a great deal of strength. To progress steadily into the exercise you can use a slight “push-off“ at the bottom of the movement to help yourself up into the upright position. To get the most out of the exercise, it is crucial that you keep your hips/pelvis forward; this will emphasize direct stimulation of the hamstrings.

**LEG CURL**

**STARTING POSITION:** Lay face down on the leg curl machine, with your knees slightly over the edge of the pad. Place your feet under the pad with the pad resting slightly above your heels. Your toes should point down towards the floor throughout the entire movement.

**MOVEMENT:** Pull the pad up toward your buttocks by flexing your knees. When you have pulled the pad as close
to your buttocks as you can, pause for one second. After you have paused, slowly (4 count) lower the weight until your knees are extended.

KEY POINTS: This is a hamstring exercise. Do not lift your hips off the machine when you pull the pad up toward your buttocks. This takes stress off the hamstrings and allows the muscles of the hip to help pull the weight up. When lowering the weight, DO NOT let the weight stack being lowered touch the weight stack at the bottom of the bottom of the machine. This takes tension off the hamstrings, giving them a rest and robbing them of an opportunity to grow. It is very important you work your hamstrings correctly. Your hamstrings must be kept in balance with your quadriceps. An imbalance will lead to hamstring injuries.

BENCH PRESS
STARTING POSITION: Lay on the bench with your head, back and buttocks firmly on the bench. Your lower back should have a normal arch. Your legs should be placed on each side of the bench with your knees bent and your feet flat on the floor. The bar should be directly above your eyes. Your hands should be placed slightly wider than shoulder width apart. Spacing will vary due to arm length. Use spacing that is comfortable for you. Be sure your hands are evenly spaced. Grasp the bar with your thumbs wrapped around it. Do not hyperextend your wrists.

MOVEMENT: The bar should be slowly lowered to the chest. At the bottom of the movement, the bar should touch the chest at the nipples. The bar should touch the chest lightly and stop momentarily. DO NOT BOUNCE THE BAR OFF YOUR CHEST! Bouncing will lead to an injured sternum. At this point, you push the weight upward in a controlled manner. Continue to push the bar upward until your arms are fully extended. KEEP YOUR HIPS ON THE BENCH WHILE PUSHING UPWARD! This is dangerous, leading to compression of the intervertebral discs in your lower back, causing injury.

KEY POINTS: Do not sacrifice form to use heavier weight. Raising your hips and bouncing the bar are techniques that will increase your bench press. These techniques will also greatly diminish the effectiveness of the exercise and predispose you to injury! Bouncing the bar and raising your hips bring momentum into the exercise, taking tension off upper body musculature and depriving your muscles an opportunity to grow. Using too much weight with improper form, is dangerous, sacrifices muscular growth and defeats the purpose of your strength training program.

INCLINE PRESS
STARTING POSITION: Lay on an incline bench with your head, back and buttocks firmly on the bench. Your back should have a normal arch. Your legs should be placed on either of the bench with your knees bent and your feet flat on the floor. Place your hands on the bar slightly wider than shoulder width apart. Spacing will vary due to arm length. Space your hands so that you are comfortable. Be sure your hands are evenly spaced. Wrap your thumbs around the bar when grasping it.

MOVEMENT: Slowly lower the weight to the upper chest (top of the sternum). The bar should touch the chest lightly and stop momentarily. The weight should then be pushed straight up over the upper chest until your arms are fully extended. Push the weight up in a controlled manner, eliminating any jerking or twisting movements.

KEY POINTS: Try to use an incline bench that is angled at 30 or 35 degrees. This is an exercise for the upper chest. Benches that are steeper than 30 - 35 degrees place too great an emphasis on the anterior deltoid. Avoid momentum and injury, do not bounce the bar off your chest and keep your hips on the bench!

CLOSE GRIP PRESS
STARTING POSITION: Same as regular bench press, except the grip placement. You should place the hands directly straight up from the shoulders, meaning, while gripping the bar with your arms fully extended your arms should be straight up and down.

MOVEMENT: The movement is basically the same as the regular bench press, but with some modifications. While lowering the bar, your elbows will remain close to your sides as opposed to being flared out during the regular version.

KEY POINTS: The most common mistake is this exercise is that athletes take to close of a grip. Using a grip that is inside shoulder width will predispose the shoulders and wrist to an extreme amount of torque, and therefore injury.
D. B. PRESSES
STARTING POSITION: Dumbbells of D. B. can be used as a variation for all the presses. Follow the starting position for each of the separate exercises. Use the same form for each exercise, keep your back flat on the bench with your head and buttocks firmly on the bench. Your legs should be on either side of the bench with your knees bent and feet flat on the floor. Your arms should be fully extended, holding dumbbells, palms facing forward.
MOVEMENT: Slowly and evenly lower the dumbbells until they are even with your mid chest. Keep your palms facing forward. Do not rotate the dumbbells. When you reach the bottom of the movement, push the dumbbells back up to the starting position.
KEY POINTS: This exercise is incorporated in your workout to put the chest through a greater range of motion than it is put through in a barbell press. Be sure to stretch your pectorals as far as possible at the bottom of the movement. However, be reasonable, do not injure yourself.

D. B. SHOULDER PRESS
STARTING POSITION: Sit on a flat bench with your legs on either side of the bench with your feet flat on the floor. Use a bench with back support if possible. Sit up straight, keeping a flat back and holding your chest high. Your head should face forward. Hold the dumbbells in each hand so they are even with the sides of your shoulders. Your elbows should be directly under the dumbbells. Your palms should face forward. Do not hyperextend your wrists.
MOVEMENT: Press both dumbbells directly upward until your arms are fully extended. Keep your palms facing forward. Do not rotate the dumbbells. Your back should be flat and your chest held high the entire movement. When you reach the top of the movement, slowly lower the weight back to the starting position. Keep your elbows under the dumbbells the entire movement.
KEY POINTS: Raise and lower the dumbbells evenly. Using a bench with back support will greatly help you maintain an erect upper torso throughout the movement.

D. B. LATERAL RAISE
STARTING POSITION: Sit on the end of a flat bench. Your back should be flat, your chest held high and your feet flat on the floor. Your head should be facing forward. With your arms at your sides, grasp a dumbbell in each hand.
MOVEMENT: Raise the weight directly to your side until your upper arms are parallel with the floor. Keep your chest high and your back flat during the entire movement. When raising the weight, rotate your thumb toward the floor as if you are pouring a pitcher of water. When you reach the top of the movement, pause for one second. After pausing, SLOWLY lower the weight back to the starting position.
KEY POINTS: Use a bench with back support if one is available where you workout. Be sure to keep your upper torso motionless when you are raising the weight. Avoid the tendency to lean forward when lowering the weight then jerking back when raising the weight. Use a weight you can handle with good form. Force your medial deltoids to do the work.

D. B. FRONT RAISES
STARTING POSITION: Begin with a dumbbell in each hand, arms at your sides, and palms facing straight back. Keep your elbows completely straight throughout the entire movement. Look straight forward, and keep a slight bend in your knees, and your upper body vertical.
MOVEMENT: Keeping your arms parallel, raise the dumbbells forward in front of you to about shoulder level. At the top of the movement your palms should be facing the ground. Slowly lower the dumbbells down to the starting position and repeat.
KEY POINTS: This exercise may also be performed by raising each arm individually and alternating movements.

D. B. REAR RAISE
STARTING POSITION: Sit on the edge of a flat bench with your legs on either side of the bench and your feet flat on the floor. Lean forward so that your upper torso is as close to parallel with the floor as possible. Keep your back
as flat as possible; avoid rolling your back when leaning forward. With your arms at your side, hanging slightly behind your knees, grasp a dumbbell in each hand. Keep your elbows slightly flexed and locked throughout the entire movement.

**MOVEMENT:** From the starting position, raise the weight directly to your side until your upper arms are parallel with the floor. Keep your upper torso in a parallel position with the floor the entire movement. When raising the weight, rotate your thumbs toward the ceiling. When you have reached the top of the movement, pause for one second. After pausing, SLOWLY lower the weight back to the starting position.

**KEY POINTS:** This exercise targets the posterior deltoids. You must perform this exercise to balance the anterior deltoid work you perform in exercises such as the bench press, incline press and the behind the neck press. When your posterior deltoids are weak and out of balance with your anterior deltoids, shoulder soreness and injury will occur. **BE DISCIPLINED WHEN PERFORMING THIS EXERCISE!** Avoid the temptation to raise the upper torso when lifting the weight. Do not let the muscles of the back help raise the weight. Force the posterior deltoids to do all the work. Many athletes have the tendency to use gravity on the downward phase, haphazardly letting the weight drop to the starting position. Control the weight on the way down. Keep your shoulders balanced.

**D. B. KNEE RAISE**

**STARTING POSITION:** While either sitting on the ground or on a bench, bend one knee and keep the other leg straight. Grasp the dumbbell and place the elbow on the inside of the knee.

**MOVEMENT:** Start with the dumbbell in the down position, then keeping your arm at a 90° angle and the elbow in the same place on the knee rotate the weight up so it’s at eye level. One set is completed when prescribed repetitions are done on both arms.

**KEY POINTS:** The arm must stay at a 90° angle for the exercise to be effective.

**CHINUPS**

**STARTING POSITION:** From a hanging position on a chinup/pullup bar grasp the bar with your hands facing in about 6-12 inches for chinups. For front pullups, grasp the bar with your hands facing out about 20-26 inches apart.

**MOVEMENT:** While in a hanging position, pull your body up until your arms are in full flexion (your chin should be just over the bar). Pause at this position and then lower your body until your arms are fully extended.

**WIDE GRIP PULLUPS**

**STARTING POSITION:** This exercise starts the same as the front pullup position, but the hand spacing is well outside shoulder width, approximately 28 – 32 inches apart.

**MOVEMENT:** The exercise is performed the same way as the above.

**D. B. ROW**

**STARTING POSITION:** Kneel on a flat bench with your opposite knee, placing your opposite hand on the bench for support. Your back should be flat and parallel to the floor. Your head should face forward. Your involved arm should hang straight down at your side, grasping a dumbbell. Your palms should face inward. The knee on the involved side should be slightly flexed with your foot flat on the floor.

**MOVEMENT:** Pull the dumbbell straight up to upper chest level. Rotate your palms backward on the upward pull. Keep your back flat and your head facing forward during the entire movement. Your elbow should be held high with your upper arm raised slightly higher than parallel at the top of the movement. When you reach the top of the movement, pause one second.

**KEY POINTS:** DO NOT ROLL YOUR BACK during the movement. Keep your back flat and your head up when performing this exercise. Rolling your back will lead to injury. Do not forget to rotate your palms backward during the upward pull. This technique will stimulate more back musculature than will keeping your palms held inward. Be disciplined; do not use momentum to help move the dumbbell.
INVERTED ROW
STARTING POSITION: Set up a barbell in a squat rack that is somewhere between hip and chest height. Position yourself underneath the bar; grasp the bar outside shoulder width, similar to your bench press grip. Bring your hips up, so that your body is in a straight line and keep it there throughout the entire exercise.
MOVEMENT: From the start position pull yourself up to the bar so that the bar hits you directly across the middle of the chest. Return to the start position, but do not let your hips sag at the bottom.
KEY POINTS: The lower the bar is positioned in the squat rack will determine how difficult the exercise is. If you are not touching your chest during the set then the bar is too low and needs to be raised up so that you complete each rep to its fullest. To make the exercise more difficult you can place a box underneath your feet so they are elevated.

SEATED ROW
STARTING POSITION: Sit down on a seated row machine. Place your feet on the platform or crossbar so that your knees are slightly flexed. Lean forward and grasp the handle with both hands. Use a narrow grip V-bar attachment for this exercise. Keep your back flat and hold your chest high. Grasp the handle with both hands.
MOVEMENT: Pull the handle back to your abdominal. Expand your chest outward when pulling the handle toward you. Concentrate on squeezing your shoulder blades together as you pull the handle to your abdominal. Your upper torso should be on a slight incline as the handle reaches your abs. When you reach the top of the movement, pause for one second, squeezing your shoulder blades together. After pausing, slowly lower the weight back to the starting position.
KEY POINTS: Keep your legs motionless when performing this exercise. Do not use your legs to help pull the bar to the top of the movement. Force the musculature of your back to move the weight. Eliminate the use of momentum when performing this exercise. YOU ARE NOT IN A ROW BOAT! Be disciplined, pause at the top of the movement and do not bounce the weights at the bottom of the movement.

FRONT LATERAL PULLDOWN
STARTING POSITION: Position yourself on a lat pulldown machine. Your knees should be placed under the kneepads with your feet flat on the floor. Adjust the kneepads so that you fit tightly in the machine. Your arms should be straight with your elbows fully extended. Use a long bar attachment for this exercise. Grasp the bar near each end, with palms over grip. Due to differences in arm length, hand spacing will differ. Use a grip that is comfortable. Some athletes prefer to use wrist straps for this exercise. Your back should be flat with your chest held high. Lean back so that your upper torso is at a 45-degree incline.
MOVEMENT: Pull the bar to your lower chest, squeezing your shoulder blades together. Keep your back at a 45-degree incline throughout the entire movement. When the bar reaches your chest, pause for one second. After pausing, SLOWLY allow the bar to move upward to the starting position. Be sure to fully extend your elbows.
KEY POINTS: Keep your back at a 45-degree incline the entire movement. Many athletes will use the lower back to help pull the bar down to the chest. This technique removes a great deal of tension from the musculature of the mid back, defeating the purpose of the exercise. Control the weight (use the musculature of your mid back) by slowly allowing the bar to move upward. Take advantage of both phases of the movement. Concentrate on pausing at the bottom of the movement. This will eliminate momentum from the exercise.

PLYOMETRICS
The plyometric program in this manual is very progressive and designed to improve your explosive power. This is a very systematic approach to plyometric training and can be done anywhere. When performing plyometrics, always wear a cross-trainer type shoe. During the exercises it is important to spend as little time on the ground as possible. In other words, as soon as your feet hit, come off of the ground quickly and make the transfer into the next rep. Make sure that you are rested adequately before you perform a set. Injury can occur easily without proper rest. All the drills are described with pictures on the following pages.
**BOX JUMP AND STICK**

**Movement:** Standing facing a box. Do not choose a box height that you cannot jump to. Jump vertically up to the box landing soft with both feet completely on the box. Upon landing stand up and step off of the box and repeat.

**SQUAT JUMP AND STICK**

**Movement:** Place your hand behind your head and feet in your squat stance. Quickly lower yourself to a half squat position and explode vertically as high as possible extending the ankles, knees, and hips. Upon landing stick the position and repeat.

**HURDLE HOPS**

**Movement:** Align 5 hurdles in a straight line. Jump vertically and horizontally over the barrier using proper arm swing. As you are approaching the hurdle pull your knees to your chest. Upon landing either immediately repeat or stick as designated.
<table>
<thead>
<tr>
<th>Exercise</th>
<th>Movement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EXPLOSIVE STEPUP</strong></td>
<td><strong>Movement:</strong> Stand facing a box with one foot upon it in a stepup position. Jump using arm swing</td>
</tr>
<tr>
<td></td>
<td>and pushing off with the leg on the box. Be sure to reach full extension of the ankle, knee, and</td>
</tr>
<tr>
<td></td>
<td>hip. In the air switch legs so that the opposite leg will end up on the box. Immediately repeat.</td>
</tr>
<tr>
<td><strong>STANDING LONG JUMP</strong></td>
<td><strong>Movement:</strong> Perform a broad jump forward using both legs. Use proper arm swing and pull knees</td>
</tr>
<tr>
<td></td>
<td>to your chest. Land quiet and immediately repeat. Emphasize height and distance.</td>
</tr>
<tr>
<td><strong>SPLIT SQUAT JUMP</strong></td>
<td><strong>Movement:</strong> Stand in a split squat position. Using arm swing jump vertically as high as possible.</td>
</tr>
<tr>
<td></td>
<td>Switch legs in the air so the opposite leg will now be forward. Land soft and immediately repeat.</td>
</tr>
</tbody>
</table>
**LATERAL HURDLE HOPS**

**Movement:** Align 5 hurdle in a straight line. If you do not have access to hurdles or the lowest setting is still too high you will need to use tall cones. Stand to the side of the hurdle. Using both feet, laterally jump over the hurdle while pulling your knees up to your chest. Immediately upon landing, jump over the next hurdle. Repeat through the hurdles.

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**CONTINUOUS LATERAL BOUND W/ SHUFFLE STEP**

**Movement:** Perform this the same as the lateral bound already described. The only difference is that you will use a shuffle step to increase the distance and you will not stick the landing. It will be continuous. The shuffle step will be the movement used during the Icky shuffle agility ladder drill. Using the left leg, step/hop to the right foot, bring the left foot to the ground and perform a lateral bound. Immediately repeat back to the left.

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**SINGLE LEG LATERAL BOX JUMP**

**Movement:** Stand side by side to a box with one foot on the middle of the box. Perform a lateral explosive stepup jump. While in the air, switch feet, so you will land with the opposite foot on the box and your body on the other side of the box. Immediately repeat to the opposite direction. Use a box approximately 8 - 18 inches high.
LATERAL BOUND W/ STABILIZATION

Movement: Jump explosively directly to the side landing on the opposite foot. Starting on your left foot push of laterally and vertically (while being explosive). Land on the opposite foot with some bend in the leg. Emphasize height and distance. As you are landing absorb the force with your leg and stick the landing. You should land soft and quiet and should not lose your balance.

LATERAL CONE HOP W/ STICK

Movement: Stand side by side to a cone. Using both legs jump over the cone laterally. Land soft and quiet and stick the position. Jump back to the starting position. Emphasize height, and lateral distance. Use proper arm swing, stay square, and land with both feet at the same time. You should pull your knees to your chest when you are going over the cone.

ZIG ZAG BOUND AND STICK

Movement: Standing on one leg you will bound forward at a 45 degree angle. Land on the opposite foot, while landing soft and quiet. You should land with your hips low and some bend in the leg. You should not lose your balance or take stutter steps upon landing. Repeat the jump back to the other leg at a 45 degree angle.
SPORTS NUTRITION

Highly demanding training programs geared towards maximizing strength, power, endurance and stamina make special demands on an athlete. Rigorous training sessions and competitive events serve to challenge and develop the capacity for maximum physical performance. Optimal sports nutrition is an integral part of peak performance and can enhance athletic potential just as an inadequate diet can limit athletic potential for maximum performance. Sports nutrition starts by sorting out sound advice from the many “fads” on the market today. Athletes have tried a multitude of ways to supplement their diets in an effort to maximize their performance.

Sport Nutrition is using food to nourish the body during athletic activity (e.g. Games, Practice and Training). As an athletic department (Teams, Sports Medicine and Strength & Conditioning), we do not advocate the use of health supplements and/or meal replacements that are not permitted by the NCAA. As a NCAA institution, we are subjected to random testing. Because of the question of the product ingredients, you put yourself at risk in failing these tests. The greatest concern we have as a department is the lack of regulation and scientific support of effectiveness of many products. Understanding what you use and eat will have the greatest effect on your athletic performance.

THE BOTTOM LINE

The average American diet consists of:
30% Carbohydrate
30% Protein
40% Fat

An athlete’s diet should be composed of:

60% Carbohydrate
(40% or greater complex)
15% Protein
25% Fat

Unfortunately, most athletes fall into the first category. Whether they are trying to gain or lose weight, this ratio is fitting for either. The only thing that changes is the total amount of calories taken in. Nutrition is not that complicated but is usually presented in a confusing manner. Here is a way to simplify it: The food consumed falls into one of the three categories previously discussed - carbohydrate, proteins and fats. Their caloric breakdown is as follows:

Each gram of carbohydrate = 4 calories
Each gram of protein = 4 calories
Each gram of fat = 9 calories
CALORIES

Athletes often overlook the stringent energy demands of daily training sessions. Total calories required are considerably increased for the training and competing athlete versus the average person, but remember it should be done in the proper % to the total daily intake.

If sufficient calories are not included in the diet, an athlete will lose too much weight, become fatigued more quickly and performance will diminish. These same symptoms will occur if a person tries too quickly to qualify for a certain weight class. If weight loss is desired, it should begin far in advance of the sport season, and be accomplished gradually.

CARBOHYDRATES

Athletes specifically need more carbs in their diet than the average person does. They provide the primary source for fuel for exercising muscles. When a person eats carbohydrate in the form of sugars and starches, it is digested and circulates through the blood stream as glucose—a simple sugar. If the glucose is not used immediately for energy, it will go into storage as glycogen in the liver and muscles. When these glycogen stores are filled, the excess glucose is stored as fat. As exercise continues, and more energy is needed, glycogen breaks down to release the glucose as fuel for the muscles.

After a few hours of exercise, whether in training or competition, the glycogen stores become low or depleted and exhaustion can quickly occur. The best way to avoid this effect is to eat the right type of carbohydrate, in its complex state. This will allow you to build up your glycogen stores rather than convert glucose. Not only in the form of carb loading before competition, but as a way of life every day. Only carbohydrates can build up glycogen stores, not protein, fat, vitamins or minerals.

Samples of complex carbohydrate:
Beans - Brown, Green, Lentils
Bread - Bagels, Breads, Muffins, Rolls
Cereal (hot/cold)
Fruit - Juice
Grains - Bulger Cous-Cous, Millet, & Rice
Noodles - Macaroni, Ramen, Spaghetti
Pancakes - French Toast & Waffles
Snacks – Crackers, Pretzels, & Popcorn
Vegetables – Corn, Juice, Peas, & Potatoes

Samples of simple carbohydrate (avoid these):
Sugar, Soft Drinks, < 100% Juice, Kool-aid, Candy, etc.
PROTEIN

The primary function of protein in the body is to build and repair tissue. It is easy to see why athletes once thought that more protein would mean greater muscle gain. We now know this is clearly not the case. Our bodies can only utilize a certain amount. Since we have little capacity to store protein, any excess may be converted to fat if it is not burned.

The amount of protein needed determined by body weight. Individual differences in metabolic rate must also be taken into account. Some nutritionists feel that high activity levels could also be a determinant. The jury is still out, so to speak, on the latter mentioned. Therefore, this may simply mean that an athlete does not need more protein, but must ingest more calories.

Average protein requirement:

0.8 - 1.5 grams per kilo of body weight.

One kilogram equals 2.2 pounds. If we figure a 175-lbs. athlete’s protein requirement to be at 1.5 gm/kilo, his/her daily intake would be 120 gm’s per day.

175 lb. Athlete = 120 grams of protein.
2 cans of tuna = 80 grams of protein
1 chicken breast = 30 grams of protein.

Total = 110 grams of protein.

It is not difficult to consume more than the necessary amount of protein each day. Therefore, as previously stated, it is vital to intake plenty of carbohydrates.

FAT

In addition to adequate amounts of carbohydrate and protein, an athlete must also consume fat to complete a well-balanced, nutritionally adequate diet. Dietary fat is a concentrated source of calories in our diet. Some fat is necessary to provide essential fatty acids and to transport certain vitamins. Stored fat is used as an energy source during activities lasting at least 20-30 min. in duration. However, large amounts (as in the average diet) can prove to be very detrimental, not only to one’s appearance and health but to athletic performance as well.

One thing to keep in mind about fat is that FAT IS FAT! No matter how one look at it, it will always be metabolized in the body the same way. Sure, there are good fats (HDL) and bad fats (LDL) that can have a positive or negative effect to our longevity, but they both equal 9 cals per gram. This means that margarine has the same caloric expenditure rate as butter! Don’t be fooled by clever television ads that try to tell the different.
WATER

Athletes often neglect water replacement. Just because an athlete is not thirsty does not mean that they are not dehydrated. Fluid loss is more rapid than most athletes realize and must be replaced ASAP! For competition it is wise to be completely hydrated the day before an event as well as immediately before, during and after. One pint of water lost in the body = one pound of body weight lost. As much as a 2% water loss in the body can result in a 19% decrease in performance.

QUESTIONS REGARDING NUTRITION AND THE ATHLETE

1. “Are large amounts of protein essential to an athlete”?

For athletes who want to gain muscle mass there is no evidence that protein supplementation of the diet is necessary. When the diet is balanced, there is enough energy for intense training and protein for growth and repair. The National Research Council on Nutrition has stated that 1.5 gm/day of protein per 2.2 lb. of body weight is sufficient for athletes. High levels of dietary protein will accumulate body fat, increase urinary water loss causing water imbalance and muscle cramping.

2. “Are vitamin and mineral supplements necessary”?

Increased food consumption ensures adequate intake of those vitamins and minerals that are depleted during strenuous exercise. Again, food intake is the important factor. If the food intake is not adequate, energy storage in the muscle will not be 100%. Regardless of excess vitamins, there first must be fuel to start the process of energy release for exercise.

3. “What is the best way to gain body weight”?

The key to weight gain is eating. Realistically, an athlete should only gain 1 lb. per week. For an athlete to only gain one pound per week they need to take in 500 calories per day over what it takes you to maintain their present weight. Sometimes it hard to add 500 calories a day to a diet. There are many things they can do; I know half of all athletes do not eat breakfast. So for half of the athletes tell them to eat breakfast, that will be more extra calories they need. If they eat breakfast and still have a hard time adding calories, then do “food adding”. Food adding is putting extras on the food they already eat, e.g. putting bananas on their cereal, spreading peanut butter on toast, there are many things their can do.

4. “What is the best way to reduce body weight”?

The opposite applies here in reducing body weight. They want to decrease their caloric intake by 500 calories per day. This will enable them to lose 1 lb. per week, which is no more or no less than they should. The first key to loosing weight is eating regular. Make sure they are eating breakfast, lunch and dinner. An athlete can lose weight by eating more at appropriate times. Eat good meals at the right time. If they eat...
regular and still have a problem losing that 1 lb. per week, taking away calories is easier than adding calories. By simple cutting back on dairy products, such as milk, cream, butter, and margarine, you can take away nearly 500 calories a day.

5. “How do I know how much I should eat”?

Here is a very simple formula to determine the number of calories that an athlete should be consuming each day:

1. Multiply your Body Weight by 11
   \[ \text{Body Wt.} \times 11 = \] (1)

2. Multiply that number by 0.85
   \[ \text{Number} \times 0.85 = \] (2)

3. Add the two numbers from 1 & 2 together.
   \[ \_ + \_ = \_] (Calories)

4. If you want to add body weight, then add 500 calories to your daily diet. If you want to lose body weight then subtract 500 calories from your daily diet.

<table>
<thead>
<tr>
<th>Cals</th>
<th>Carbs (gm’s)</th>
<th>Fat (gm’s)</th>
<th>Protein (gm’s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>300</td>
<td>55</td>
<td>75</td>
</tr>
<tr>
<td>2500</td>
<td>375</td>
<td>70</td>
<td>95</td>
</tr>
<tr>
<td>3000</td>
<td>450</td>
<td>85</td>
<td>115</td>
</tr>
<tr>
<td>3500</td>
<td>525</td>
<td>95</td>
<td>130</td>
</tr>
<tr>
<td>4000</td>
<td>600</td>
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</tr>
<tr>
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<tr>
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<td><strong>Dairy Products</strong></td>
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<tr>
<td>Milk Skim</td>
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<td>8</td>
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<tr>
<td>Milk 2%</td>
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<td>Plain nonfat yogurt</td>
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<td>Butter</td>
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</tr>
<tr>
<td>Margarine</td>
<td>1 Tbsp</td>
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<td>0</td>
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<tr>
<td>Cottage Cheese (1% fat)</td>
<td>1/2 cup</td>
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<td>14</td>
</tr>
<tr>
<td>Cheddar Cheese</td>
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<td>114</td>
<td>7</td>
</tr>
<tr>
<td>Mayonnaise</td>
<td>1 Tbsp</td>
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<tr>
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<td>Wheat Bread</td>
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<td>6.5 Inch Pita Bread</td>
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<tr>
<td>Rye Bread</td>
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<tr>
<td>Wheat Thin Crackers</td>
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<td>35</td>
<td>1</td>
</tr>
<tr>
<td>English Muffin</td>
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<td>102</td>
<td>4</td>
</tr>
<tr>
<td>Roll</td>
<td>1 plain</td>
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</tr>
<tr>
<td>Pancakes</td>
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<td>5</td>
</tr>
<tr>
<td><strong>Fish</strong></td>
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</tr>
<tr>
<td>Salmon</td>
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</tr>
<tr>
<td>Shrimp</td>
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<tr>
<td>Tuna</td>
<td>3 oz</td>
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</tr>
<tr>
<td>Halibut</td>
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<tr>
<td><strong>Beans</strong></td>
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</tr>
<tr>
<td>Black Beans</td>
<td>1/2 cup</td>
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<tr>
<td>Lima Beans</td>
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<td>Green Beans</td>
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</tr>
<tr>
<td>Tomato</td>
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</tr>
<tr>
<td>Spinach</td>
<td>1 cup</td>
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</tr>
<tr>
<td>Broccoli</td>
<td>1 cup</td>
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</tr>
<tr>
<td>Cabbage</td>
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</tr>
<tr>
<td>Cucumber</td>
<td>7 slices</td>
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<tr>
<td>Cauliflower</td>
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<tr>
<td>Onions</td>
<td>1 cup</td>
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<tr>
<td>Canned Corn</td>
<td>1/2 cup</td>
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<td>3</td>
</tr>
<tr>
<td>Potato(with skin)</td>
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<td>220</td>
<td>5</td>
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<tr>
<td>Brussels Sprouts</td>
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<tr>
<td>Dill Pickle</td>
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<td><strong>Fruit</strong></td>
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</tr>
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<td>Apple</td>
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</tr>
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<td>Banana</td>
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</tr>
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<td>Orange</td>
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<td>Cantaloupe</td>
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<tr>
<td>Strawberries</td>
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<td>1</td>
</tr>
<tr>
<td>Raisins</td>
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</tr>
<tr>
<td>Papaya</td>
<td>1</td>
<td>118</td>
<td>2</td>
</tr>
<tr>
<td>Plum</td>
<td>1</td>
<td>36</td>
<td>1</td>
</tr>
<tr>
<td>Grapefruit</td>
<td>1/2 of a whole</td>
<td>37</td>
<td>1</td>
</tr>
<tr>
<td><strong>Rice/Pasta</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White Rice</td>
<td>1 cup cooked</td>
<td>267</td>
<td>6</td>
</tr>
<tr>
<td>Brown Rice</td>
<td>1 cup cooked</td>
<td>216</td>
<td>5</td>
</tr>
<tr>
<td>Egg Noodles</td>
<td>1 cup cooked</td>
<td>213</td>
<td>8</td>
</tr>
<tr>
<td><strong>Cereals</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corn Flakes</td>
<td>1 1/4 cup</td>
<td>108</td>
<td>2</td>
</tr>
<tr>
<td>Buckwheat</td>
<td>1 cup</td>
<td>600</td>
<td>23</td>
</tr>
<tr>
<td>Bulgur</td>
<td>1 cup</td>
<td>477</td>
<td>17</td>
</tr>
<tr>
<td>Oatmeal</td>
<td>1 cup</td>
<td>144</td>
<td>6</td>
</tr>
<tr>
<td>Cap’n Crunch</td>
<td>1 cup</td>
<td>120</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Snacks</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rice Cakes</td>
<td>2</td>
<td>69</td>
<td>1</td>
</tr>
<tr>
<td>Popcorn</td>
<td>1 cup</td>
<td>31</td>
<td>1</td>
</tr>
<tr>
<td>2.5 inch mini Pretzel</td>
<td>10</td>
<td>11</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Sherbet</td>
<td>1 cup</td>
<td>266</td>
<td>2</td>
</tr>
<tr>
<td>Snickers</td>
<td>2.2 oz</td>
<td>134</td>
<td>3</td>
</tr>
<tr>
<td><strong>Red Meats</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lean Sirloin Steak</td>
<td>2 oz.</td>
<td>133</td>
<td>17</td>
</tr>
<tr>
<td>Pork Chop</td>
<td>2 1/3 oz.</td>
<td>169</td>
<td>18</td>
</tr>
<tr>
<td>Hamburger (lean)</td>
<td>3.5 oz.</td>
<td>275</td>
<td>24</td>
</tr>
<tr>
<td>Ham (extra lean)</td>
<td>3.5 oz.</td>
<td>145</td>
<td>21</td>
</tr>
<tr>
<td>Bacon</td>
<td>3 med slice</td>
<td>109</td>
<td>6</td>
</tr>
<tr>
<td><strong>Poultry</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chicken Breast</td>
<td>4 oz.</td>
<td>176</td>
<td>35</td>
</tr>
<tr>
<td>White Turkey Meat</td>
<td>4 oz.</td>
<td>174</td>
<td>34</td>
</tr>
<tr>
<td><strong>Drinks</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apple Juice</td>
<td>1 cup</td>
<td>116</td>
<td>2</td>
</tr>
<tr>
<td>Orange Juice</td>
<td>1 cup</td>
<td>111</td>
<td>2</td>
</tr>
<tr>
<td>Grapefruit Juice</td>
<td>1 cup</td>
<td>96</td>
<td>1</td>
</tr>
<tr>
<td>Coke Cola</td>
<td>12 oz.</td>
<td>144</td>
<td>0</td>
</tr>
<tr>
<td>Diet Coke</td>
<td>12 oz.</td>
<td>0</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Coffee</td>
<td>1 cup</td>
<td>5</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Beer (light)</td>
<td>12 oz.</td>
<td>100</td>
<td>6</td>
</tr>
</tbody>
</table>