If you have any questions concerning any of the lifts or other exercises in this manual, please contact our strength conditioning coach by e-mail or phone at:
(909) 335-4005

Scott Fricke ext. 5235
scott_fricke@redlands.edu
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<td>53-55</td>
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</table>
## STRETCHING

<table>
<thead>
<tr>
<th>Exercise</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HEELS TOGETHER</strong></td>
<td>- Seated, pull together close to the groin.</td>
</tr>
<tr>
<td></td>
<td>- Apply downward pressure with elbows to the inner knees</td>
</tr>
<tr>
<td><strong>KNEE TO CHEST</strong></td>
<td>- Lying on back pull right leg, just below the right knee with both hands,</td>
</tr>
<tr>
<td></td>
<td>to chest.</td>
</tr>
<tr>
<td></td>
<td>- Alternate legs and repeat.</td>
</tr>
<tr>
<td><strong>SPINAL TWIST</strong></td>
<td>- Seated, cross right leg over extended left leg.</td>
</tr>
<tr>
<td></td>
<td>- Apply pressure with left elbow against right knee.</td>
</tr>
<tr>
<td></td>
<td>- Look over shoulder while stretching.</td>
</tr>
<tr>
<td></td>
<td>- Alternate sides and repeat.</td>
</tr>
<tr>
<td><strong>FIGURE FOUR</strong></td>
<td>- Seated position with right leg straight and left foot on top of right knee.</td>
</tr>
<tr>
<td></td>
<td>- Take hands and place behind right knee and hold.</td>
</tr>
<tr>
<td></td>
<td>- Still holding right leg, roll onto back and try to pull right knee to face.</td>
</tr>
<tr>
<td></td>
<td>- Alternate sides and repeat.</td>
</tr>
<tr>
<td><strong>QUAD STRETCH</strong></td>
<td>- Start in down position lying on the right side of the body.</td>
</tr>
<tr>
<td></td>
<td>- Bend left knee and hold foot with left hand and pull back.</td>
</tr>
<tr>
<td></td>
<td>- Alternate sides and repeat.</td>
</tr>
</tbody>
</table>
## STRETCHING

<table>
<thead>
<tr>
<th><strong>TOE TOUCH</strong></th>
<th>- Standing position with feet slightly apart, slowly bend at the waist until the hamstrings feel the stretch.</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="TOE TOUCH" /></td>
<td><img src="image2" alt="TOE TOUCH" /></td>
</tr>
</tbody>
</table>

| **BENT OVER TOE PULL** | - Standing position, with right foot in front of left foot, bend down with right hand and pull toes of the right foot up.  
- Let the right heel roll and keep contact with the ground.  
- Alternate side and repeat. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3" alt="BENT OVER TOE PULL" /></td>
<td><img src="image4" alt="BENT OVER TOE PULL" /></td>
</tr>
</tbody>
</table>

| **CALF STRETCH** | - Standing position, with right foot well in front of the left foot.  
- Lean hips forward, bend the right knee and keep the left leg straight.  
- Keep the left heel on the ground and feel the stretch in the left calf.  
- Alternate side and repeat. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image5" alt="CALF STRETCH" /></td>
<td><img src="image6" alt="CALF STRETCH" /></td>
</tr>
</tbody>
</table>

| **3 WAY STRETCH** | - Standing position with feet wider than shoulder width and knees straight, grab the right knee with both hands, bend at waist and bring face to right knee until you feel a stretch.  
- Now place right hand on right knee and left hand on left knee, bend at waist and try to bring nose to the ground between your feet.  
- Grab left knee with both hands, bend at waist and bring face to left knee until you feel a |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image7" alt="3 WAY STRETCH" /></td>
<td><img src="image8" alt="3 WAY STRETCH" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SAIGON STRETCH</strong></th>
<th>- Feet apart, squat down as far as possible and hold.</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image9" alt="SAIGON STRETCH" /></td>
<td><img src="image10" alt="SAIGON STRETCH" /></td>
</tr>
</tbody>
</table>
SELECTING LOADS

In the spring, the focus of your lifting was to develop muscle mass and strength. From that solid base of strength, you will now begin training your body in a sport specific manner, developing power, speed and agility. You will start to work on releasing that strength you have gained from the weight room.

The summer manual will offer four-day per week split routine workout. Commit yourself early to developing great habits, work hard, rest properly and settle into a routine. You will need to familiarize yourself with the charts below in order to select poundages and record your progress throughout the summer.

| Columns one, two, and three under the 3x10 heading are the poundages for three sets of ten reps. Column one is for set one, column two for set two, column three for set three. |
| Columns three, four, and five under the 3x5 heading are the poundages for three sets of five reps. |

<table>
<thead>
<tr>
<th>3x10</th>
<th>3x5</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Table" /></td>
<td><img src="image" alt="Table" /></td>
</tr>
</tbody>
</table>

Columns one, two, and three under the 3x10 heading are the poundages for three sets of ten reps. Column one is for set one, column two for set two, column three for set three.

Columns three, four, and five under the 3x5 heading are the poundages for three sets of five reps.
**RECORDING YOUR PROGRESS**

Example: If on Monday, your dead lift exercise calls for three sets of ten, consult columns one, two and three on the poundage chart. Look down the columns until you find the poundages you think you can accomplish.

<table>
<thead>
<tr>
<th>1RM</th>
<th>85</th>
<th>90</th>
<th>95</th>
<th>100</th>
<th>105</th>
<th>110</th>
<th>115</th>
<th>120</th>
<th>125</th>
<th>130</th>
<th>135</th>
</tr>
</thead>
<tbody>
<tr>
<td>135</td>
<td>85</td>
<td>95</td>
<td>100</td>
<td>110</td>
<td>115</td>
<td>120</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>140</td>
<td>90</td>
<td>100</td>
<td>105</td>
<td>110</td>
<td>120</td>
<td>125</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>145</td>
<td>95</td>
<td>100</td>
<td>110</td>
<td>115</td>
<td>125</td>
<td>130</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>95</td>
<td>105</td>
<td>110</td>
<td>120</td>
<td>125</td>
<td>135</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>155</td>
<td>100</td>
<td>110</td>
<td>115</td>
<td>125</td>
<td>130</td>
<td>140</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you think that you can accomplish 100 pounds on set one, 110 pounds on set two, and 115 pounds on set three, then you have predicted your one repetition max (1RM) to be 155 pounds.

Record your 1RM.

<table>
<thead>
<tr>
<th>Monday</th>
<th>Week 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm Up</td>
<td>2x10</td>
</tr>
<tr>
<td>Squat</td>
<td>2x5</td>
</tr>
<tr>
<td>Deadlifts</td>
<td>3x10</td>
</tr>
<tr>
<td>RDL</td>
<td>2x10</td>
</tr>
<tr>
<td>Pull Up</td>
<td>2x10</td>
</tr>
<tr>
<td>Biceps</td>
<td>2x10</td>
</tr>
<tr>
<td>Neck</td>
<td>2x10</td>
</tr>
<tr>
<td>Abs</td>
<td>2x10</td>
</tr>
</tbody>
</table>

Record the 1RM in the space to the right of the exercise and under the appropriate week.

If the poundages you selected were too difficult and did not allow good technique, reduce the 1RM the next week. If the poundages were too easy, increase the 1RM the next week. Place an arrow in the adjacent column to indicate an expected increase or decrease.
Use the chart below to determine the one rep max (1RM) for your recorded weekly core lifts. To find your 1RM, simply scroll down the columns of the prescribed sets and reps to the heaviest totals you predict you can safely, successfully accomplish. Your 1RM will be to the left and adjacent to these totals, under the 1RM column. For example, look at the first three totals on the upper left of the chart: If the workout called for three sets of ten (3x10), and the heaviest set totals you thought you could accomplish were 85, 95, and 100, you would be attempting a 1RM of 135. If you successfully completed all three sets, you would record your 1RM as 135. If you could not finish the sets, record the 1RM at a lower approximation.

<table>
<thead>
<tr>
<th>1RM</th>
<th>10 10 10</th>
<th>5 5 5</th>
<th>10 10 10</th>
<th>5 5 5</th>
<th>10 10 10</th>
<th>5 5 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>135</td>
<td>85 95 100 110 115 120</td>
<td></td>
<td>200 215 230 250 265 280</td>
<td></td>
<td>310 315 320 325 330 335</td>
<td></td>
</tr>
<tr>
<td>140</td>
<td>90 100 105 110 120 125</td>
<td></td>
<td>205 220 235 250 265 285</td>
<td></td>
<td>315 320 325 330 335 340</td>
<td></td>
</tr>
<tr>
<td>145</td>
<td>95 105 110 115 125 130</td>
<td></td>
<td>210 225 240 255 270 290</td>
<td></td>
<td>320 325 330 335 340 345</td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>95 105 110 120 125 135</td>
<td></td>
<td>210 225 245 260 275 290</td>
<td></td>
<td>325 330 335 340 345 350</td>
<td></td>
</tr>
<tr>
<td>155</td>
<td>100 110 115 125 130 140</td>
<td></td>
<td>215 230 245 265 280 295</td>
<td></td>
<td>330 335 340 345 350 355</td>
<td></td>
</tr>
<tr>
<td>160</td>
<td>105 110 120 130 135 145</td>
<td></td>
<td>220 240 250 270 290 305</td>
<td></td>
<td>335 340 345 350 355 360</td>
<td></td>
</tr>
<tr>
<td>165</td>
<td>105 115 125 130 140 150</td>
<td></td>
<td>225 240 260 275 295 310</td>
<td></td>
<td>340 345 350 355 360 365</td>
<td></td>
</tr>
<tr>
<td>170</td>
<td>110 120 125 135 145 150</td>
<td></td>
<td>225 245 260 280 295 315</td>
<td></td>
<td>345 350 355 360 365 370</td>
<td></td>
</tr>
</tbody>
</table>
**BASE PROGRAM: Weeks 1-4**

The primary objective of this phase is to build lean muscle mass and improve work capacity. The BASE consists of high volume workouts that develop muscle hypertrophy. When lifting, perform high repetitions with low weight resistance at a slow, controlled pace.

<table>
<thead>
<tr>
<th>Monday</th>
<th>Week 1 June 2-6</th>
<th>Week 2 June 9-13</th>
<th>Week 3 June 16-20</th>
<th>Week 4 June 23-27</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm Up Routine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Squat</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td>3x5</td>
<td></td>
</tr>
<tr>
<td>Hang Clean</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td>3x5</td>
<td></td>
</tr>
<tr>
<td>Dead Lift</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td>3x5</td>
<td></td>
</tr>
<tr>
<td>RDL</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td></td>
</tr>
<tr>
<td>Pull Up</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td></td>
</tr>
<tr>
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<tr>
<td>Biceps</td>
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<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td></td>
</tr>
<tr>
<td>Neck</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abs</td>
<td></td>
<td></td>
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</table>

Cross training: *X tr #1 *X tr #2 *X tr #3 *X tr #1 * refer to page 15 for X tr

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<table>
<thead>
<tr>
<th>Thursday</th>
<th>Week 1 June 2-6</th>
<th>Week 2 June 9-13</th>
<th>Week 3 June 16-20</th>
<th>Week 4 June 23-27</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm Up Routine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Squat</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td>3x5</td>
<td></td>
</tr>
<tr>
<td>Hang Clean</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td>3x5</td>
<td></td>
</tr>
<tr>
<td>Dead Lift</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td>3x5</td>
<td></td>
</tr>
<tr>
<td>RDL</td>
<td>3x10</td>
<td>3x10</td>
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</tr>
<tr>
<td>Pull Up</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td>3x5</td>
<td></td>
</tr>
<tr>
<td>Hamstrings</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td></td>
</tr>
<tr>
<td>Biceps</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td></td>
</tr>
<tr>
<td>Neck</td>
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<td></td>
</tr>
<tr>
<td>Abs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Field Routine: Stretch & Plyometrics (refer to pg. 39) & *Nine Minute Jump Ropes *(refer to page 15)

---

**Arthur Ashe**
Tennis Legend

*"Who knows what force gnaws at us, telling us that our accomplishments, no matter how sensational, are not enough: that we need to do more?"*

---

**BASE PROGRAM: Weeks 1-4**
The primary objective of this phase is to build lean muscle mass and improve work capacity. The BASE consists of high volume workouts that develop muscle hypertrophy. When lifting, perform high repetitions with lower weight resistance at a slow, controlled pace.

<table>
<thead>
<tr>
<th>Tuesday</th>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>June 2-6</td>
<td>June 9-13</td>
<td>June 16-20</td>
<td>June 23-27</td>
<td></td>
</tr>
<tr>
<td>Warm Up Routine</td>
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<td>3x10</td>
<td>3x10</td>
<td>3x5</td>
<td></td>
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<tr>
<td>Bench Press</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
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<tr>
<td>Incline Press</td>
<td>3x10</td>
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<td></td>
</tr>
<tr>
<td>Overhead Press</td>
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</tr>
<tr>
<td>Dips</td>
<td>3x10</td>
<td>3x10</td>
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<td>3x10</td>
<td></td>
</tr>
<tr>
<td>Shoulders</td>
<td>3x10</td>
<td>3x10</td>
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<tr>
<td>Traps</td>
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<td>Triceps</td>
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<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
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</tr>
<tr>
<td>Neck</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td></td>
</tr>
<tr>
<td>Abs</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td>3x10</td>
<td></td>
</tr>
<tr>
<td>Field Routine:</td>
<td>Pattern Run (pg. 39) &amp; *X tr #4</td>
<td>Pattern Run (pg. 39) &amp; *X tr #5</td>
<td>Pattern Run (pg. 39) &amp; *X tr #6</td>
<td>Pattern Run (pg. 39) &amp; *X tr #4</td>
<td>* Refer to page 15 for X tr</td>
</tr>
</tbody>
</table>

Field Routine: Man Makers (pg. 15) 300 yd. Shuttle (pg. 16) Combat Tr. (pg. 15) Man Makers (pg. 15)

**DEVELOPMENT PROGRAM: Weeks 5-7**
The primary objective of this phase is to provide a transition from the muscle mass gaining BASE phase, and the final PEAK phase in which the end goal is to recruit as many fast twitch muscle fibers as possible. The DEVELOPMENT consists of medium volume, increased intensity workouts to develop maximum athletic strength. When lifting, perform moderate repetitions with increasing weight resistance at a deliberate, controlled pace.

### DEVELOPMENT PROGRAM: Weeks 5-7

The primary objective of this phase is to provide a transition from the muscle mass gaining BASE phase, and the final PEAK phase in which the end goal is to recruit as many fast twitch muscle fibers as possible. The DEVELOPMENT consists of medium volume, increased intensity workouts to develop maximum athletic strength. When lifting, perform moderate repetitions with increasing weight resistance at a deliberate, controlled pace.

<table>
<thead>
<tr>
<th>Monday</th>
<th>Week 5 June 30- July 4</th>
<th>Week 6 July 7-11</th>
<th>Week 7 July 14-18</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warm Up Routine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Squat</td>
<td>3x5</td>
<td>3x5</td>
<td>3x5</td>
<td></td>
</tr>
<tr>
<td>Power Clean</td>
<td>3x5</td>
<td>3x5</td>
<td>3x5</td>
<td></td>
</tr>
<tr>
<td>RDL</td>
<td>2x10</td>
<td>2x10</td>
<td>2x10</td>
<td>&quot;Now, if you’re going to win any battle, you have to do one thing. You have to make the mind run the body. Never let the body tell the mind what to do.” General George S. Patton Commander, U.S. 3rd Army World War II</td>
</tr>
<tr>
<td>Pull Up</td>
<td>2x10</td>
<td>2x10</td>
<td>2x10</td>
<td></td>
</tr>
<tr>
<td>Hamstrings</td>
<td>2x10</td>
<td>2x10</td>
<td>2x10</td>
<td></td>
</tr>
<tr>
<td>Biceps</td>
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### Warm Up Routine

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### Field Routine

- **Pattern Run & X tr #4**
- **Pattern Run & X tr #5**
- **Pattern Run & X tr #6**

*refer to page 15 for X tr*

### PEAK PROGRAM: Weeks 8-10

The primary objective of this phase is to recruit as many fast twitch muscle fibers as possible. The DEVELOPMENT phase consists of low volume, high intensity workouts to develop maximum athletic power. When lifting, perform low repetitions with increasing weight resistance at a deliberate, controlled pace.

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### Far better it is to dare mighty things, to win glorious triumphs, even though checkered by failure, than to take rank with those poor spirits who neither enjoy nor suffer much, because they live in the gray twilight that knows not victory nor defeat

- President Theodore Roosevelt
### Warm Up Routine

<table>
<thead>
<tr>
<th>Exercise</th>
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### Field Routine

- Stretch & Plyometrics (pg. 31)
- Nine Minute Jump Ropes (pg. 15)

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### PEAK PROGRAM: Weeks 8-10

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“... thus a victorious army wins its victories before seeking battle; while an army destined to defeat fights only in hope of winning.”

Sun Tzu
Chinese Military Expert
500 B.C.
# CROSS-TRAINING

## #1
- 250 Push Ups
- 100 Hindu
- 10 Finger Tips
- 10 Reverse
- 30 Hindu
- 20 Finger Tips
- 20 Hindu

## #2
- VEGAS (Playing Cards)
  - Face Card - 10+ Push Ups
  - Red # - Hindu Push Ups
  - Black # - Hindu Squats
  - Joker / Wild Card - 10 H-Squat & 10 Push Ups
  - Auxiliary: Mountain Climbers
    - 3 x 30 Sec's
  - Grasshopper
    - 3 x 30 Sec's

## #3
- SUPER CHEST
  - Hindu Push Ups
  - 1 Leg Up Push Ups
  - Finger Push Ups
  - 1 Arm Push Ups
  - Towel Push Ups
  - Auxiliary: Box Jumps
  - Dot Drill 3 x 30 Sec's

## #4
- UP HILL BUDDY-CARRY RUN
  1. Piggy Back Up Hill & Jog Down
  2. Switch, Same
  3. Continue To Exhaustion

## #5
- STADIUM STEPS
  1. Run Up, Walk down
  2. Proceed To Exhaustion

## #6
- SUPER LEGS
  - Hindu Squats:
    - A) 50, B) 75, C) 100
  - Hindu Jump Squats:
    - A) 10, B) 20, C) 30
  - Jump Lunges:
    - A) 5, B) 10, C) 15
  - Partner Hops, 1 Log
    - A) 10, B) 20, C) 30
  - 1 Legged Squats:
    - A) 8, B) 10, C) 15
  - Wall Chairs
    - A) 30, B) 45, C) 60 Sec's

## Friday
- **MAIN MAKER**
  - Sprint 100 yds
  - 25 Push Ups
  - Sprint 100 yds
  - 25 Push Ups
  - Sprint 80 yds
  - 25 Leg Lifts
  - Sprint 80 yds
  - 25 Leg Lifts
  - Sprint 60 yds
  - 25 H-Squat
  - Sprint 60 yds
  - 25 H-Squat
  - Sprint 40 yds
  - 25 V-Ups
  - *Sprint 40yds
  - 25 V-Ups
  - Sprint 20 yds
  - 25 Push Ups
  - *Sprint 20yds
  - 25 Push Ups

## Friday
- **COMBAT TRAINING**
  - 60 Hindu Squats
  - 1 Minute J-Rope
  - 1 Minute Rest
  - 65 Hindu Push Ups
  - 1 Minute J-Rope
  - 1 Minute Rest
  - 25 V-Ups
  - 1 Minute J-Rope
  - 1 Minute Rest
  - 10 Reverse Push Ups
  - 1 Minute J-Rope
  - 1 Minute Rest
  - 10 No Mo Sit Ups
  - 1 Minute J-Rope
  - 1 Minute Rest
  - 30 Tables
  - 1 Minute J-Rope
  - 1 Minute Rest
  - 10 Kneeling Backwards
  - 1 Minute J-Rope

## Friday
- HILL SPLINTS
  - Contributor:
    - 5 x 50’s
  - or
    - Starter:
      - 5 x 50’s
      - 2 x 70’s
      - 2 x 90’s
    - or
      - Team Leader:
        - 1 x 150
        - 1 x 100
        - 1 x 80
        - 1 x 70
        - 1 x 60
        - 3 x 50’s

## 9 MINUTE J-ROPE
- 1 Minutes @ 150/Minute
  - 30 Sec’s Rest
- 2 Minutes @ 160/Minute
  - 60 Sec’s Rest
- 3 Minutes @ 160/Minute
  - 60 Sec’s Rest
- 2 Minutes @ 160/Minute
  - 30 Sec’s Rest
- 1 Minutes @ 150/Minute

---

*One 40 and 20-yard sprint will be backward sprints.*
The 300 yard shuttle is one of the physical tests you will be required to perform upon arrival to fall camp. This is a great way to measure speed, fitness, strength, mental toughness, and extreme desire. The shuttle is run in 50-yard lengths 6 times. At the first, third, and fifth turn, you will be required to pick up a tennis ball, carry it back to the original start line, and place it across the line and then resuming your shuttle run.

The basic rules and guidelines of the 300 Yard Shuttle:

1. Do the shuttle run just once a week.
2. Do the shuttle run on a soft (forgiving) surface.
3. Start full speed, finish full speed, do not pace yourself; it is a 300-yard sprint.
4. Always warm up and stretch first.
5. Always keep your eyes up, hands and jaw relaxed, elbow angles fixed.
6. Always start from a 3-point stance.
7. Wear good shoes, preferably the cleats you will wear during the season.

Record your times. A good time to shoot for is: The fastest you can achieve! Faster than the week before!

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Hurdle Drill (Daily Warm-up)

Purpose: To increase mobility and flexibility of the hip joints.

Start: Athlete stands perpendicular to hurdle near one side of the hurdle (see fig. 1).

Procedure: 1. Align the shoulders, hips, and feet in a squared position.
2. Use slow, deliberate movements to glide under the hurdle (see fig. 2).
3. Stand erect on the other side of the hurdle (see fig. 3).
UNCOMMON EXERCISES

Snatch Squat (Daily Warm-up)

Purpose: To increase circulation, stretch, and develop balance.
Start: Standing, the bar pressed over the head, arms fully extended.
Procedure: 1. Position the bar chest high on the outside of the rack frame.
2. Position hands slightly wider than shoulder width on the bar.
3. Position the bar comfortably across the shoulders at the neck base.
4. Step back and position feet parallel, toes slightly pointed outward.
5. Move hands to a snatch (wide) grip.
6. Press the bar over the head, arms fully extended (see fig. 4).
7. Squat down, (see fig. 5) then return to start position (see fig. 6).
Dead Lift

**Purpose:** To develop the hips, back, legs, and trapezius muscles.

**Start:** Bar rested on the floor or platform.

**Procedure:**
1. Position feet under the bar at about shoulder width.
2. Address the bar with an alternating wide and shoulder-width grip.
3. Bend the knees, sink the hips, and keep the spine vertical (see fig. 7).
4. Extend the hips forward and up (see fig. 8).
5. Finish standing upright, chest out (see fig. 9).
**Hang Clean**

**Purpose:** To develop explosive power in the hips and legs.

**Start:** See figure 10.

**Procedure:**
1. Lower the bar to the top of the knees by flexing at the hips (see fig. 11).
2. Extend the hips explosively in a scooping action.
3. Simultaneously, extend up to the balls of the feet, and shrug (see fig. 12).
4. Point the elbows in front of you and pull yourself under the bar...
5. Catch bar on the front portion of the shoulders.
6. Flex at the knees and hips to absorb the weight (see fig. 13).

---

**FIGURE 10**

**FIGURE 11**

**FIGURE 12**

**FIGURE 13**

---

**UNCOMMON EXERCISES**

**Russian Dead Lift (RDL)**

**Purpose:** To develop the upper hamstrings, gluteus maximus, and erector stabilizers.

**Start:** See figure 14.

**Procedure:**
1. Fill chest with air.
2. Unlock the knees and bend forward, head up and chest out (see fig. 15).
3. Move the hips backward as the bar is lowered.
4. Lower the bar until the hips cannot go back any further (see fig. 16).
5. Raise the bar by extending the hips to the starting position.

**Hindu Squats (HS)**

**Purpose:** To build strength and endurance throughout the thighs, calves, lower back and chest.

**Start:** Begin with your feet shoulder width apart and toes pointing straight ahead. Your hands are pulled tightly to your chest. Inhale (see fig. 17)

**Procedure:**
1. Lower buttocks until thighs are parallel to the floor
2. As you lower your buttocks your hands are behind your back, and they follow you toward the ground (see fig. 18).
3. As you move toward the parallel-to-the-ground position, you should simultaneously raise your heels from the floor (see fig 19).
4. Now swing your arms upward and push off your toes, raising your body to a standing position.
5. As you raise your body, your hands come in front of your body.
6. Once you have reached the up-position, you pull your arms in toward your chest again, as if you are rowing a boat. Make tight fists with your hands and pull (elbows tight).

![FIGURE 17](image17.jpg)

![FIGURE 18](image18.jpg)

![FIGURE 19](image19.jpg)

### UNCOMMON EXERCISES

**Hindu Pushups (HP)**

**Purpose:** To build strength and endurance throughout the upper body and increase flexibility in the spine, hips and shoulders.

**Start:** Begin with hands on the ground, shoulder width apart. Your feet are on the ground and your legs are also shoulder width apart. With your buttocks in the air and head looking back toward heals. Inhale (see fig. 20).

**Procedure:**
1. Bend your elbows and lower body in a circular arc, until your arms are straight. Your chest is up and your hips are almost touching the ground.
2. Look to the sky. Exhale (see fig. 21).
3. Return to original position by pushing back toward your heels, straightening your arms, and stretching your legs (see fig. 20).
4. Back to same position as described by number one.
5. Do as many repetitions as you can.

**FIGURE 20**

**FIGURE 21**

---

**UNCOMMON EXERCISES**

**Reverse Pushups (RP)**

**Purpose:** To build strength and endurance in back, shoulders and arms. It also promotes flexibility in the spine and shoulders.

**Start:** Begin from your back with your knees bent and feet flat on the ground, place your hands next to the tops of your shoulders with palms on the ground (see fig. 20).

**Procedure:**
1. Push your body off the floor until your arms reach the locked position. The crown of your head should be facing the floor.
2. Push yourself forward. Make your body into wheel by trying to get your chest even with your hands (see fig. 21).
3. Return to original position by bringing your upper back and neck to the floor (see fig. 20).
4. Exhale at the top of movement, inhale at the bottom.

FIGURE 20

UNCOMMON EXERCISES

No momentum setups (NMS)

Purpose: To build strength and endurance in abdominals, lower back and hip flexors. Also by removing momentum it gives a true test of midsection strength.

Start: Begin laying on your back with straight legs, hands at your sides, and palms flat (see fig. 22).

Procedure: 1. Without letting your heels or legs come off the floor, sit up using your abdominal muscles (see fig. 23).
2. Come all the way up until your torso is perpendicular to the floor (see fig. 24).
3. Return to start position.
4. Inhale up, exhale down.

FIGURE 21
UNCOMMON EXERCISES

V-ups (VU)

Purpose: To build strength and endurance in upper abdominals and lower abdominals at the same time.

Start: Begin laying on your back with straight legs and arms extended over your head (see fig. 25).

Procedure: 1. Simultaneously raise your arms and legs in the air above your mid-section (see fig. 26).
2. Touch your hands to your feet.
3. Return to original position by lowering your arms and legs to the ground (see fig. 27).
4. Inhale up, exhale down.
UNCOMMON EXERCISES

Table Maker (TM)

**Purpose:** To build strength and endurance in upper and lower back, triceps, shoulders, hip, and buttocks. It also promotes flexibility in the spine.

**Start:** Begin from a seated position on the ground with legs straight and hands palm down at your sides (see fig. 28).

**Procedure:**
1. Push your body forward until the soles of your feet are flat on the ground. At the same time, arch your hips and back and let your head fall backward (see fig. 29).
2. Squeeze your buttocks tightly and push the soles of your feet into the ground. Straighten your back as much as you can.
3. Hold the position for a count or two, then return to the ground.
4. Inhale up, exhale down.
UNCOMMON EXERCISES

Grass Hoppers (GH)

**Purpose:** To build strength and endurance in your abdominals, hips, and thighs. It also promotes flexibility in the hips and spine. Plus a great conditioner.

**Start:** Beginning position in on all fours (see fig. 30).

**Procedure:**
1. While keeping your hands on the floor, slightly lift your right leg and slide it under your chest until it touches the ground on your left side (see fig. 31).
2. Without missing a beat, reverse directions and slide your left leg over to your right side (see fig. 32).
3. Inhale up, exhale down.
UNCOMMON EXERCISES

One-Legged Squats (OS)

Purpose: To build strength and endurance in your quads, hips, and buttocks. It also adds resistance to regular squats and helps improve overall balance.

Start: Stand on one leg with the opposite leg extended forward at waist level. Your hands are stretched straight in front of your chest (see fig. 33). You may need to hold onto an immovable object for balance.

Procedure: 1. Slowly lower your buttocks until they go below your knees (see fig. 34).
2. Push back up.
3. Inhale up, exhale down.
UNCOMMON EXERCISES

**Sideward Leg Lifts (SL)**

**Purpose:** To build strength and flexibility in hips and thighs.

**Start:** *Lie on your side with your legs together* (see fig. 35).

**Procedure:**
1. Lift both legs off the ground at the same time (see fig. 36).
2. Inhale up, exhale down.
Plyometrics are specialized training drills that are done in sets and repetitions just like weight training exercises. The word plyometric was coined from the Greek root Plythein, which means to increase, and the word isometric. These power development drills first gained notoriety in the 1972 Olympics as the Soviet sprinter Valery Borzov became the 100 and 200 meter champion. Since that time, Plyometrics have become an integral part of all high level speed and power training programs. You will systematically increase plyometric intensity throughout the summer twelve-week cycle by following the program as illustrated below:
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The scientific rules of plyometrics are as follows:

1. Maximum tension develops when active muscle is stretched quickly.
2. The faster a muscle is forced to lengthen, the greater the tension exerts.
3. The rate of the stretch is more important than the magnitude of the stretch.

Plyometrics are categorized into three groups. The groups are differentiated in the way you land.

1. Jumping and landing on two feet is a jump.
2. Jumping and landing on one foot repetitively is a hop.
3. Jumping and landing on one foot then the other is a bound.

The basic rules and guidelines of plyometrics are easy, but are highly important. Since plyometrics are high intensity, all-out drills, it is important to know and understand these few guidelines:

1. Do the drills just once a week.
2. Do the drills on a soft (forgiving) surface.
3. Emphasize quality, not quantity. More is not better.
4. Always warm up and stretch first.
5. Do the drills fresh, prior to weight training and running.
6. Concentrate on quickness and power off the ground rather than height or distance of the actual leap.
7. Utilize the overload principle (this will be taken care of by your training program).
8. Wear good shoes, preferably the cleats you will wear during the season.
9. Run at a distance between 30 to 50 yards.

**PLYOMETRICS**

There are several basic plyometric positions that are consistent in most of the drills.

1. Chest over knees over toes (similar to an upright tailback position).
2. Body weight is centered on the front half (forefoot) of the foot.
3. Arms should be fixed at the elbow, locked at approximately 90 degrees.
4. Shoulders are hyper-extended so the upper arm is approaching parallel to the ground.
5. The ankle is "locked" so there will be little to no dorsiflexion upon either take-off or landing.
As you commence with the basic drills, you should drive both arms up simultaneously in order to maximize the lift properties. Violently "block" (sudden stop) the arm drive at about eye-level in order to transfer the power generated to the body. At the same time, you should explode off the ground with a maximal jump.

While in the air, re-cock the shoulders and legs, so you will land in the plyometric position, ready to explode immediately upon ground contact.

**PLYOMETRICS**

**Basic: Tuck Jumps**

Begin in a basic plyometric position. During the jump, you should gain height rather than distance. Arms should drive up and block simultaneously. As you progress, work to drive the heels to the buttocks and the knees-toes to the chest in a synchronized, cycling fashion. Land in a good cocked position and immediately explode back into the air. Spend as little time on the ground as possible. Complete 4 sets of 30 seconds each.
Basic: **Calf Jumps**

This exercise is done from a slightly different plyometric position. You will begin with little flexion in your knee. Do not allow them to bend. As with the tuck jumps, you are striving for height rather than distance. You should only use your calf muscles to complete this exercise. This exercise will best help you develop power and quickness when you spend little time on the ground as possible. On days when calf jumps are performed, complete 4 sets of 30 seconds each.

Basic: **Ski's (Diagonal Jumps)**

Begin in the basic plyometric position. Drive and block the arms simultaneously while jumping into the air. In this exercise, you will jump forward and off to a side in a zigzag manner as you progress. You will only move 18-36 inches in width and you should try to center your weight with each jump. In this exercise, you need to gain ground horizontally. Be quick off the ground, utilize proper plyometric mechanics, driving your knees-toes up and over as you slalom down the field. 4 sets of 30 seconds each.
Intermediate: Power Skips

Begin to skip in a sprinters action utilizing great technique (elbow at 90 degrees, knee-toe up, good triple extension on the support leg, back flat, head held high, eyes focused forward). After two to three skips, begin to explode up into the air, concentrating on great drive. When in mid air, freeze in the skip position for just a millisecond before you begin to uncoil for the next repetition. Do not overreach with the lead foot or contact the ground with your heel. You must drive the lead foot straight down under the knee in order to properly contact the ground with the forefoot. Complete 4 sets of 30 seconds each.

Intermediate: Lateral Bounds (a.k.a. Heidens or Speed Skaters)

Begin this drill in the basic plyometric position, but widen your stance slightly and gently bend forward at the waist. You will hop from side to side landing only on the support leg, while the swing leg crosses behind without touching the ground. The arms should come across the body and become cocked in preparation for the next lateral bound. Spend as little time as possible on the ground during this exercise. When doing lateral bounds, you will do 4 sets, 30 seconds per set.
**Intermediate: Box Jumps**

Begin this exercise in the basic plyometric position. Begin the exercise by jumping onto the box using proper arm drive/block and knee-toe lift. Land on the center of the box with soft landing mechanics and distribute your weight evenly to both legs. Carefully step off the box, DO NOT JUMP, and do the next repetition. When doing box jumps, you will do 4 sets of 20 repetitions.

![Box Jumps Illustration]

**PLYOMETRICS**

**Advanced: Power Shuffle**

This power exercise is executed similarly to other standard shuffle drills. You will move laterally, taking a lead step as you simultaneously push off the support leg. Your lead foot should contact the ground first, followed closely by your trailing foot. Your feet should remain shoulder width apart throughout the exercise and keep your weight on the balls of your feet. Make sure to do this exercise in an explosive manner, utilizing your arms for maximum power. Complete 4 sets of 30 seconds each.

![Power Shuffle Illustration]
Advanced: **Power Cariocca**

This is the old cariocca drill, executed by lead stepping, crossover stepping, lead stepping and crossover behind the support leg stepping. However, as you begin to gain speed, you should explode each step, forcefully pushing of the support leg while driving the swing leg laterally in a lead step, crossing over (knee-toe up) or reaching behind with great power. Try to cover as much ground as possible while balancing your weight on the balls of your feet. The arms should be utilized for maximum power. Complete 4 sets of 30 seconds each.

![Power Cariocca Diagram]

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**PLYOMETRICS**

Advanced: **Running Bounds**

When doing running bounds you will run slowly and you will achieve great vertical lift. Start the exercise as a jog and progress to a bound concentrating on great knee-toe lift and heel to buttock drive. This explosive exercise is much like a triple jump except you are switching the swing and support legs with each bound. Do not overreach and land on your heels. Land on the balls of your feet with the foot directly under the center of your body. Spend as little time possible on the ground. Complete 4 sets of 30 seconds each.

![Running Bounds Diagram]
Objective:
The objective of pattern running for a defensive lineman is to practice the various "charges" or get-offs necessary to succeed at the defensive line position.

Set Up:
Perform the drills on a large grass surface, wearing the cleats you will wear during the season. In addition, you will need a marker to serve as an offensive lineman, you can use a partner, a garbage can, a tree, or anything else that will allow you to imagine lining up across from an offensive lineman.

Stance:
Always start from a three point stance.
Your feet should be slightly wider than shoulder width, staggered six inches or less.
Eyes should be up and focused on the target (offensive lineman).
Butt should be slightly higher than your head.
When shaded to the right, as the first group of diagrams depict below, your left hand should be in the grass, left foot staggered behind the right foot, feet shoulder width apart or more.
When shaded to the left as in the second group of diagrams, your right hand should be in the grass, right foot staggered behind the left, feet shoulder width apart or more.

Each charge is a minimum 10 yard sprint. Pursue with your shoulders square to the line of scrimmage. Do each charge twice.
Objective:
The objective of pattern running for a linebacker is to improve your change of direction, or "C.O.D." The ability to quickly change your momentum is of paramount importance when it comes to getting in position to make tackles.

Set Up:
Perform the drills on a large grass surface, wearing the cleats you will wear during the season. In addition, you will need ten markers of any kind, as long as they will not harm your foot or ankle should you step on them. Cones, old socks, or other cloth articles are fine.

Stance:
Always start from a two point stance.
Your feet should be slightly wider than shoulder width.
Your weight should be on the front halves of your feet.
Your knees should be bent.

Zig Zag Drill
Place the markers about 10 yards apart, varying the stagger between successive cones 5 to 10 yards.

As you perform the drill, keep your toes and knees directed at the next marker, but keep your chest facing the finish point.

Keep your center of gravity low.

Perform the drill at full speed, 5 times.

Drop & Drive Drill
Place markers A, B, and C in a triangle pattern about 20 yards apart as shown above.

Begin at point "A" with your back to points "B" and "C". Start the drill by turning away from point A and sprinting back to point B or C.

As you run, keep your toes and knees pointed to the point you are running toward, but keep your chest facing midway between the origin point and the target point. Your head and eyes should turn back and forth to both points several times.

When you reach B or C, turn back to A and side shuffle right and left with fast feet for 2-3 seconds. Then sprint ahead 20 yards.

Keep your center of gravity low. Perform 5 times to B and C each.
Objective:
The objective of pattern running for a defensive back is to improve your ability to backpedal.

Set Up:
Perform the drills on a large grass surface, wearing the cleats you will wear during the season.

Keys to a better backpedal:
Start from a slightly staggered stance.
First foot to move is your back foot.
Keep your toes pointed straight ahead.
Do not allow your heels to touch the ground.
Keep your hips and shoulders low to the ground.
Relax your hands.

'Round The Clock

Imagine the circular face of a clock. The face of the clock is 50 yards across. Always start the drill at twelve o’clock and backpedal to the center of the clock, (25 yards) then transition to a forward sprint to one o'clock. Begin again at twelve o’clock by backpedaling then break to two o’clock. Continue in this fashion until you have backpedaled 25 yards 12 times, and sprinted to each number on the face of the clock (25 yards, twelve times). Go 'round the clock twice.

**Coaching Point: Remember to turn your hips when you explode in another direction.**
Objective:
The objective of pattern running for offensive linemen is to improve your position specific agility.

Set Up:
Perform the drills on a large grass surface, wearing the cleats you will wear during the season.
Use markers for transition and track-ending points.

Stance:
Equally distribute reps from 2 & 3-point stances with outside foot back.

Run: Run with your hands directly under your chest – in position to block and with an arm swing.

Do each patterns 4-5 times.
A: 5 yard drive block.
B: 15 yard, 45 degree angle release. Pivot outside and sprint 5 more yards.
C: 15 yards. Sprint flat toward the sideline and then turn upfield 5 yards.
D: 15 yard pull, turn up, and seal inside at 10 yards upfield.
E: 10-yard slide step pass protect, then rally for 15 yards.
PATTERN RUN: QUARTERBACK

Objective: The objective of pattern running for a quarterback is to improve quickness and agility.

   a. Simulate taking a snap under center or have a partner hand up a ball.
   b. Exaggerate step length on drop steps 3, 5, and 7
   c. Come to balance on step 8
   d. On step 9, "stab" the instep of your back foot into the ground at a 90-degree angle from an imaginary target
   e. Simulate a proper throwing position.

2. **8 Reps**: 5-step drop back pass set-ups with "duck out" finishes (4 each way). See diagram 2.
   a. Simulate taking a snap or have a partner hand up a ball.
   b. Exaggerate step depth on drop step 3
   c. Come to balance on step 4
   d. On step 5, "stab" the instep of your back foot into the ground at a 90-degree angle from an imaginary target
   e. Achieve a proper throwing position, duck your left shoulder, spin to the left, and sprint around a marker 15 yards to your left (reverse shoulder duck, spin, and sprint to right side for next repetition

3. **8 Reps**: Sprint out passes (four each direction). See diagram 3.
   a. Simulate taking a snap
   b. Sprint through a marker 4 yards deep and 2 yards to the direction you are sprinting
   c. Keep the football at the top of your numerals and let it move naturally from side to side
   d. Square your hips to an imaginary target and attack the line of scrimmage
   e. After reaching the line of scrimmage, cut back, and sprint for a distance of 15 yards (you may choose to elude imaginary tacklers during your sprint) and tuck the ball away at the line of scrimmage.
PATTERN RUN: RUNNING BACK

Objective:
The objective of pattern running for offensive linemen is to improve your agility.

Set Up:
Perform the drills on a grass surface, wearing the cleats you will wear during the season. Carry and secure a football as you train. Use markers for transition and ending points.

Stance:
Two point stance with knees bent. Place free hand (when carrying a football) on your thigh. Align 6-yards from the line of scrimmage.

Each Pattern Four Times Each Way (8 times total)

A: Open step, cross over and sprint for 10 yards. Turn upfield sprinting, and then alternate 1 hand to the ground at 2, 7 yard intervals. Then sprint and finish for 5 yards.

B: Sprint for 5 yards at a 45 degree angle, pivot inside, sprint up-field for 5 yards, then pivot inside and sprint toward the goaline for 5 yards.

C: Cross over, then plant and drive to the line of scrimmage for 5 yards. At the line of scrimmage, plant your outside foot and cut back at a 45 degree angle for 10 yards, then cut-up field to the goaline for 5 yards.

D: Burst from your stance straight ahead for 10 yards. Cut off from your starting foot and finish toward the sideline at a 45 degree angle for 5 yards. Then, cut up-field to the goaline for 5 yards.
Set Up:
Perform the drills on a large grass surface, wearing the cleats you will wear during the season. Carry and secure a football as you train. Work with a quarterback if possible. The diagrams depict a receiver on the left side of the ball. Always catch and secure a football (real or imaginary). Always finish and visualize each run after catch. Snatch a football from the top of an overturned garbage can at the point of catching when a quarterback is not available.

Stance:
Two point stance. Inside foot forward.

Each Pattern Four times, From Both Sides Of The Ball (20 Times Total)
A: Start with a rapid "foot fire" attack an imaginary defender's outside shoulder for 12 yards, plant the inside foot and make a 45 degree angle break to the sideline, catch a football and finish by getting 1 foot on the ground inside the boundary.

B: Start as in A. At 8 yards run vertically pressing into the defender for 8 more yards, then widen to catch a football over your outside shoulder, securing it, and finish with an upfield sprint of 5 yards.

C: Start as in A. At 8 yards plant your outside foot, make a 45 degree angle break to the inside, catch and secure a football in front of you, and finish with an upfield sprint of 5 yards.

D: Start as in A. At 8 yards plant your outside foot, and make a 45 degree angle break to the inside. After the first break, execute a second 45 degree angle break at the point in which your outside foot hits the ground a second time. Accelerate, catch and secure a football, and finish with an upfield sprint of 5 yards.

E: Start as in A. At 6 yards plant you’re outside foot, make a sharp break to face the QB. Catch and secure the football, pivot outside and sprint 10 yards upfield toward the goaline.

F: Start as in A. At 5 yards roll outside and parallel to the line of scrimmage (out route). Catch football and turn upfield for 5 yards before going out of bounds.
NUTRITION

Food is far more important than just something you eat for pleasure or to appease your hunger. Rather, it is a potent drug that you’ll take at least three times a day for the rest of your life. Once food is broken down into its basic components (glucose, amino acids, and fatty acids) and sent into the bloodstream, it has a more powerful impact on your body and your health than any drug your doctor could ever prescribe. Every time you eat, you are taking very strong medicine, which can have a good, bad, or indifferent effect on your body for the next four to six hours. Proper nutrition becomes important for an athlete in training because the body requires six separate types of nutrients in order to function properly. They are carbohydrates, fats, proteins, vitamins, minerals, and water. The various foods contain assorted proportions of these six nutrients. A correct balance between different types of food must be consumed to supply the necessary nutrients. An imbalance of these nutrients may cause undesirable adaptations, such as an excessive increase of body fat. The following three steps ensure the proper balance of nutrients to increase lean muscle mass, limit fat storage, and improve performance. A three step shopping list is included as a guideline to properly select food when grocery shopping:

Step #1

Fats
- Almonds
- Avocado or Guacamole
- Corn Oil
- Mayonnaise
- Olive Oil
- Peanut Butter
- Peanuts
- Salmon
- Soybean Oil
- Sunflower Seeds or Oil
- Walnuts

Vitamin E
- Broccoli
- Cantaloupe
- Dried Papaya
- Red Peppers
- Red Marinara
- Salsa
- Tomato Juice
- Tomato Sauce
- Tomatoes
- V8 (Vegetable Drink)
- Water Squash

Vitamins A & C
- Brussels Sprouts
- Dark Salad Greens
- Grapefruit (Pink or Red)
- Guavas
- Mandarin Oranges
- Mangos
- Sweet Potatoes
- Tangerines
- Watermelon
- Yams
- Egg Yolk

Vitamin A
- Apricots
- Carrots
- Cheese
- Green Peas
- Peaches
- Pumpkin
- Skim Milk
- Yogurt
- Chili Powder
- Tomato Catsup or BBQ
- Green/Yellow Pepper

Vitamin C
- Cauliflower
- Green Beans
- Kiwi
- New Potatoes w/ Skin
- Oranges
- Pineapple
- Raisins
- Strawberries
- Pea Pods
- Radish

Step #2

Best Choice Carbs
- Acorn Squash
- Black Beans
- Butter Beans
- Cherries
- Cucumbers or Pickles
- Egg Noodles
- Eggplant
- Fettucini
- Green Beans
- Kidney Beans
- Lentils
- Mushrooms
- Nectarines
- Onions
- Pears
- Plums
- Split Peas
- Summer Squash

Second Choice Carbs
- All Bran Cereal
- Baked Beans
- Bran Chex
- Brown or Wild Rice
- Cheerios
- Cream of Wheat
- Lima Beans
- Mini or Shredded Wheat
- Multi Grain Bread
- New Boiled Pot. w/ skin
- Oat Bran
- Oatmeal
- Pita Bread
- Rye Bread
- Special K Cereal
- Tortillas
- Unsweetened Fruit Juice
- Whole Grain Bread

Third Choice Carbs
- Apples
- Banana Cake
- Bananas
- Cornmeal
- Grapes
- Green Peas
- Macaroni
- Oatmeal Cookies
- Popcorn
- Pound Cake
- Raisins
- Ravioli
- Spaghetti
- Sweet Corn
- Sweet Potatoes
- Water Crackers
- Wheat Crackers
- Whole Wheat Flour

Fourth Choice Carbs
- Baked Russet Potatoes
- Candy
- Cartoon Cereals
- Doughnut
- French Bread
- French Fries
- Golden Grahams
- Granenuts
- Hashbrowns
- Mashed Potatoes
- Melba Toast
- Puffed Rice
- Refried Beans
- Sweetened Drinks
- Total Cereal
- White Bread
- White Flour
- White Rice

Things To Remember!
* Fresh produce is best, but to avoid spoilage and to ensure availability buy a combination of fresh, frozen, and canned fruits and vegetables.
* Try to include carbs from all three groups when shopping.
* When not active, reduce your total carbohydrate intake. (Especially Third)

Step #3

Best Choice Protein
- 95% Lean Ground Beef
- 95% Lean Ground Turkey
- 95% Lean Ham
- Beans & Peas
- White Skinless Chicken
- Fat Free Milk
- Low Fat Cottage Cheese
- Non Fried Fish

Second Choice Protein
- 2% Milk
- 85% Lean Ground Beef
- Turkey
- 85% Lean Ham
- 85% Lean Encased Meat
- Low Fat Cheese
- Low Fat Yogurt
- Regular Cottage Cheese
- Regular Yogurt
- Trimmmed Lamb
- Trimmmed Beef Brisket
- Turkey Bacon or Sausage

Third Choice Protein
- Baked Chicken Strips or Nuggets
- Chicken-Dark Meat
- Skinless Dark Meat Tuna in Water
- Whole Milk
- Low Fat Pudding
- Nuts or Seeds
- Peanut Butter
- Ricotta Cheese
- Skim Mozzarella

Fourth Choice Protein
- 75% Lean Ground Beef
- 75% Lean Ground Turkey
- Bacon
- Beef or Pork Ribs
- Chicken-w/ Skin
- Fried Chicken
- Fried Fish or Seafood
- Ham on Bone
- Ice Cream
- Regular Cheese

Processed Meats

Things To Remember!
* Concentrate on best choice items as your source of protein.
* Remember every time the butcher processes the meat, (i.e. skin or bone out) the cost goes up. Learn to trim your own meat.

Fruits, vegetables, nuts, and seeds provide a variety of vitamins and minerals to the diet in addition to calories from carbohydrates and fats. Vitamins and minerals cannot be manufactured by the cells of the body and, when lacking in the diet, can cause metabolic deficits. Every month more and more agents are being identified in vegetables and fruits that enhanced anabolic metabolism and health. Many of the natural sources of vitamins and minerals from fruits and vegetables are not available in supplemental form. Natural, fresh produce are especially important for athletes during intense training to aid recovery. There are too many vitamins and minerals along with all the various functions required for metabolic functioning to mention here. The following are some of the more important ones.

Vitamins are organic compounds needed for growth and repair of muscle tissue. They also act as CO-enzymes playing a part in a variety of energy reactions. Vitamin C is necessary for growth and maintenance of muscle, cartilage and bone. Without it, wounds would not heal and bones would not grow. Without Vitamin A, the body would have a higher incidence of infections to the lungs, eyes, and kidneys. Lack of Vitamin E in the diet would cause a deterioration of cells in the body including muscle tissue.

Minerals are inorganic compounds required as catalysts to start many metabolic reactions. Iron is essential for the transport of oxygen to the muscle cells. Zinc is responsible for many cellular reactions, one of which is the digestion of proteins. Without magnesium, carbohydrates cannot break down into ATP. Without calcium and potassium, nerve transmission for muscle contraction would not be possible.

We emphasize fruits and vegetables because of the predominate presence of Vitamins A and C. The best sources of Vitamin A are typically found in vegetables with dark green, yellow, orange, and red colors. The best sources of Vitamin C (ascorbic acid) are typically found in citrus fruits and some vegetables. When trying to cut calories, fruits, and vegetables become even more important and should not be avoided! Your immune system takes on greater stress when not meeting daily calorie needs. Become familiar with the fruits and vegetables on the “High Priority List” carry both Vitamins A and C. Nuts and seeds contain abundant quantities of Vitamin E along with essential fats. Fat is Estonia, a vehicle for transporting fat-soluble Vitamins A, D, E and K.
Step Two: Alter Your Carbohydrate Intake Relative To Your Activity Level.

Every cell in the body uses energy in order to function. It has been discussed that large amounts of muscular energy are necessary to compete and train. This energy demand must be balanced by the intake of energy in the foods we eat. If more food is consumed beyond the demands of the body, the excess energy is stored. If the food intake does not meet the energy demands of the body, a loss of muscle mass will result. In both cases, performance is reduced. There is a fine line between too much and not enough.

Two nutrients found in food, carbohydrates, and fats supply the majority of the energy needs for the body. Protein can supply a small amount of energy under certain circumstances. Carbohydrates must be broken down into simple sugars called glucose, and fats are converted into fatty acids. Both fatty acids and glucose are the final by-products of digestion, which can be converted into ATP. ATP is the only fuel product utilized for muscle contraction. Glucose and fatty acids can be stored respectively as glycogen and triglycerides. When the energy demands of the body increase, stored glycogen and triglycerides are called upon to meet the energy needs. Glycogen is stored in the liver and muscle fibers and readily available for quick energy needs. Triglycerides are stored fat cells called adipose tissue. While fat can be stored in almost unlimited amounts, carbohydrate storage is limited to a one-day supply. Therefore, carbohydrate intake through the food you eat must be replenished daily to insure maximum performance capabilities. Carbohydrates, sugar, glucose, and glycogen all have equivalent meaning for our discussions, as do fats, fatty acids, and triglycerides.

Carbohydrate and fat metabolism occur simultaneously. The ratio of carbohydrate to fat utilization during activity depends on the intensity and volume of the overload. As the intensity of activity increases, the demand for carbohydrate utilization increases and fat demand decreases. Fuel for high intensity exercise is supplied predominantly from the breakdown of carbohydrates. During very low activity levels, fat contributes up to 70% of the total energy needs. During sleep, the energy demands for carbohydrates are the lowest, and fat is utilized at an even higher ratio. So, while sitting in a chair reading this book, you are burning primarily fat.
The three energy systems are an interaction of three storage tanks. The first tank represents the ATP-PC energy system. The important point to remember here is that ATP can only be supplied and regulated from this first tank. ATP is supplied by the breakdown of only carbohydrates from the lactic acid tank. During an athletic movement, the muscle fibers utilize almost strictly ATP stored in the muscle, a very small amount of muscle glycogen from the lactic acid system, and infinitesimally amount of fat is burned. The ability of the body to switch to high ratio of fat utilization is very quick. Seconds after a play is over, the oxygen system tank supplies ATP by the breakdown of both carbohydrates (blood glucose, muscle, and liver glycogen), fat, and, to a small degree, protein. Fat is converted into ATP during the rest interval between intense activity at nearly the same rate as at rest (50 to 70 percent). The other 30 to 50 percent is replaced by converting carbohydrate into ATP, also from the oxygen system. During a match or game, the lactic acid system is not called into play to a great degree, only the ATP-PC system during the event and the Oxygen system during recovery. This means that you do not have to be on a high carbohydrate diet to supply the energy needs for your sport.

There are times when strength training that the demand on the lactic acid system to supply ATP by breaking down carbohydrates is higher, especially when doing sets of ten repetitions during the base phase of training. A heavy set of squats for ten repetitions burns the available ATP for the first few reps and gradually changes to higher carbohydrate utilization broken down anaerobically into ATP. After the set is over, fat from the oxygen system is predominately utilized during recovery, but the demands from a single workout is not enough to deplete the body’s carbohydrate storage. The only time this is possible is to train several days in a row and to not eat any carbohydrates at all, then you may have a problem. Following the three-step performance meal guide will supply enough carbohydrates to meet the energy demands of the strength-training program outlined in this book.

Regulate your carbohydrate intake according to your level. When activity levels are high, eat more carbohydrates, and when low, consume less. It doesn’t take as much carbohydrates to refill the tanks. After a high carbohydrate meal when the energy demands are low, the energy balance is thrown out of “whack.” A certain percentage of the excess carbohydrates not needed as fuel is stored as fat. When not active at all, reduce your total intake of carbohydrates even more to balance the energy demands. In fact, to lose excess fat, reduce carbohydrate intake to slightly below your current energy demand. A reduced carbohydrate intake combines a higher ratio of at being burned during inactive periods and makes getting rid of excess fat a lot easier.
Various types of carbohydrates release glucose into the blood stream at different rates. The relative ability of individual foods to raise blood glucose quickly to a high level is known as the glycemic index. Foods such as potato chips, candy bars, cookies, and soda pop, digest quickly stimulating a fast addition of blood glucose. This give the body a quick jolt of energy. The body responds by releasing massive quantities of insulin. Insulin is a hormone that quickly lower the glucose level, and in fact it, does such a great job that often times it is reduced to an extreme. When blood glucose becomes too low, energy level dip, and the body responds by creating an appetite for more carbohydrates to raise glucose levels. More carbohydrates, more blood glucose, more insulin, more glucose is stored as fat. Insulin no only converts excess glucose into body fat, it shuts down fat metabolism. A cycle of high and low blood glucose levels leads to storage of more and more fat. Carbohydrate foods with a high fiber and protein content, such as kidney beans, digest slowly inducing a slow increase of blood glucose. These types of foods have slow insulin response supplying glucose at a slow, steady pace. Subsequently, there is not a cycle of high and low glucose levels with a higher ratio of fat used as a fuel source.

The shopping list gives three types of carbohydrate choices based on glycemic index. The classification of carbohydrate sources by insulin response in the blood breaks from the traditional definitions of “simple” and “complex” carbohydrates. The majority of the fruits and vegetables listed as good sources of Vitamin A & C are listed with “Best Choice Carbohydrates”. Vegetables that didn’t qualify as good sources of Vitamin A or C are good carbohydrate choices like cucumbers, eggplant, mushrooms, onions, garlic, some summer squash, and some fruits like cherries, pears, plums, nectarines, or blueberries. It is okay to eat second and third choice carbohydrates especially during high activity periods. The important thing is to consume them with a lean protein source to slow the glucose release down. Fourth choice carbohydrates snacks in the absence of protein is where the problem begins. Third choice carbohydrates that also have a high fat content; candy bars, cookies, and potato chips are especially fattening. These types of foods should be cut out all together. There are some people who seem to eat anything and as much as they want to and still put on muscle. These are the exceptional, lucky few.

**NUTRITION**

**Step Three: Select A Lean Protein Source Protein**
Protein is the building material for the development of muscle tissue. It also provides the structural framework for hormones that control metabolic processes. To adapt to high loads associated with training, an athlete may have double the protein requirements of a sedentary person. However, the majority of athletes eat more than double the protein requirement and need no further persuasion to eat more.

During the digestion of foods, proteins are broken down into the basic units of amino acids and released into the blood stream. There are 20 amino acids used to form different protein combinations for growth and body functions. All 20 amino acids are necessary to support metabolism necessary for life. There are two different types of amino acids, essential and nonessential. The eight essential amino acids must be supplied throughout the intake of food we eat. The non-essentials are manufactured by the body. Complete proteins contain all eight of the essential amino acids. Protein from animal sources are complete proteins. Most plant proteins are usually short of one or more of the eight amino acids, therefore, are not complete sources of protein. An exception is isolated soy proteins, which is a complete protein from a plant source. Plant proteins can only supply the essential amino acids if eaten in the proper combinations. We recommend to include protein from an animal source with each meal to ensure the intake of all eight amino acids.

The amount of protein to eat is based on body weight. The approximate amount of the different protein sources to take for every 50 pounds of body weight. Basically, it takes about 4 oz. Of animal protein (~35 g. Protein), 8 fl. Oz. Of milk (~8 g. Protein), and 1/2 cup of beans (~8 g. Protein) for every 50 lbs. Of body weight per day to meet the requirements of an athlete in training.

Some of your essential fatty acids which the body cannot synthesize are essential for health. These will be satisfied through the diet by selecting foods with high Vitamin E content (See shopping list). When foods with high Vitamin E content are combined with protein consumed from animal sources, you may run the risk of eating too much fat. To help you identify calories from fat, we have classified the sources of protein into three categories. If foods are selected from the “Best Choice List”, both your protein and fat needs will be satisfied.

The “Fourth Choice Protein” is also higher in saturated fat. Because of the well-documented health consequences of a diet high in saturated fat, we encourage athletes to predominately select the “Best Choice” protein sources. It is especially important to limit “Fourth Choice Proteins” when not active. Nine calories are stuffed into one gram of fat where one gram of carbohydrate and protein has only four calories. Too much fat can quickly translate into excess calorie intake and storage of fat. Eliminate “Second and Third Choice Proteins” from pre-training or competition meals. For example, eating BBQ Ribs
during a pre-competition meal would divert a lot of blood to the digestive tract. In order for
the muscles to perform at maximum capacity, they must not compete for blood which
supplies oxygen and energy. A lower fat protein source like fish or skinless chicken breast
is digested quicker. In general, athletes like the feeling of having a clear GI tract when
training or competing.

Eating large meals high in protein requires lots of energy to digest and slow down the
anabolic recovery processes. By spacing your protein intake with smaller more frequent
meals promotes less competition between the energy necessary for digestion and the
recovery of muscle tissue after training. Protein intake and glycogen storage are both
maximized after training when combination protein and third choice carbohydrates are
consumed.

Even though the intake of fat must be moderated, don’t be afraid of it. When trying to
completely eliminate fat from the diet, you run the risk of not consuming enough essential
amino acids necessary for maximum performance. While too many total calories increases
the percentage of body fat and decreases performance capabilities, fat is a major contributor
of muscle ATP during low intensity activities. Fat spares liver and muscle glycogen,
extending the endurance of the body. Fat also adds flavor to the foods we eat.

NUTRITION

Drink Plenty of Water

Water makes up about 60 percent of a person’s total body weight. Water is the most
important nutrient in order for the body to function. You can live without all the other
nutrients for several days, but without water death would result in a very short period of
time. Water is the main component of blood plasma. Without it, oxygen, glucose, fatty
acids, and amino acids wouldn’t be transported to your active muscles. Catabolic waste
products couldn’t be eliminated from the body. Water loss is accelerated during exercise
and as little as four percent reduction can have a devastating impact on performance. Be
sure to drink plenty of water, and during heavy activity, drink even more water than what
your thirst indicates to insure proper hydration.
There has been a lot of advertising lately for different carbohydrate drinks. A lot of these ads are geared toward athletes. The consumption of these drinks is not going to give you more energy. Unless, of course, you have not been eating properly. While the drinks may not give you an energy boost, they do help replace fluids. If water lost by sweating is not replaced, then you are going to have energy problems. It does not matter whether you drink water or a flavored drink as long as you replace the fluids. If a flavored drink is more compatible for fluid consumption, then by all means drink it. But remember, water is just as good and a lot cheaper.

Many athletes think that they can replace fluids by drinking a nice cold beer after a workout or practice. Alcohol is actually considered a nutrient because it does supply seven calories of energy per gram. This is almost the same number calories as a gram of fat. So beer can cause a “beer gut” through the consumption of too many total calories. It is also considered a drug because of its depressive effects on the nervous system. The greatest problem for an athlete is that it interferes with the metabolism of other nutrients critical to the recovery process. Alcohol also suppresses the release of the anti-diuretic hormone, which results in the excretion of more urine and potentially leading to dehydration.
## Sample Meal Schedule
**2,500 calories**

**Breakfast**
- Milk
- Citrus Fruit
- Bread substitute (1 serving)
- Enriched bread
- Butter or margarine
- 1 cup
- ½ grapefruit
- 1½ cup oatmeal
- 2 slices toast
- 3 tsp.

**Lunch**
- Milk
- Meat (2 oz. beef)
- Enriched bread (2 servings)
- Vegetables
- Bread substitute (1 serving)
- 1 cup
- Hamburger
- 1 bun
- Carrot sticks
- Potato chips (1 oz. bag)

**Afternoon Snack**
- Enriched bread
- Butter or margarine
- 2 slices
- 2 tsp.

**Dinner**
- Milk
- Meat (3 oz.)
- Bread substitute (1 serving)
- Vegetables
- Dressing (fat substitute)
- Enriched bread
- Butter or margarine
- Fruit (1 serving)
- Bread substitute (1 serving)
- 1 cup
- Swiss steak
- Baked potato
- Broccoli
- Salad
- 2 tsp.
- 2 rolls
- 3 tsp.
- Fruit in season
- Angel food cake

**Evening Snack**
- Milk
- Bread substitute (1 serving)
- 1 cup
- 1 cup popcorn
# Sample Meal Schedule
(2,700 calories)

<table>
<thead>
<tr>
<th>Breakfast</th>
<th>1 cup</th>
<th>½ grapefruit</th>
<th>1 cup oatmeal</th>
<th>2 sweet rolls</th>
<th>3 tsp.</th>
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<tr>
<td>Milk</td>
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<tr>
<td>Citrus fruit</td>
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<td>Enriched bread</td>
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<td>Butter or margarine</td>
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<tr>
<td>Lunch</td>
<td>2 slices cheese</td>
<td>1 bun &amp; potato chips (1 oz. bag)</td>
<td>Lettuce and tomato (for sandwich)</td>
<td>Celery sticks</td>
<td>1 cup</td>
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<td>Meat or equivalents (2 servings)</td>
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<td>Bread and substitute (3 servings)</td>
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<td>Vegetables</td>
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<td>Afternoon Snack</td>
<td>Fruit in season</td>
<td>Cupcake</td>
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<td>Fruit</td>
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<td>Bread substitute (3 servings)</td>
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<tr>
<td>Dinner</td>
<td>Meat loaf (5 oz.)</td>
<td>Baked potato</td>
<td>Broccoli</td>
<td>Salad</td>
<td>2 tsp.</td>
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<tr>
<td>Evening Snack</td>
<td>1 cup</td>
<td>1 tbsp. chocolate sauce</td>
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<td>Chocolate milk</td>
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<td>Simple dessert</td>
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</table>
## Sample Meal Schedule
*(3,000 calories)*

### Breakfast
- Milk
- Citrus fruit
- Meat equivalent
- Enriched bread
- Butter or margarine
- 1 cup cocoa
- ½ cup orange juice
- 1 poached egg
- 3 slices toast
- 3 tsp.

### Lunch
- Meat or equivalent (1 serving)
- Enriched bread
- Butter or margarine
- Bread substitute (1 serving)
- Vegetable
- Bread substitute (2 servings)
- Milk
- 2 tbsp. peanut butter
- 2 slices
- 1 tsp.
- 5 crackers
- Vegetable soup
- Pound cake (small slice)
- 1 cup

### Afternoon Snack
- Bread substitute (2 servings) and
- Fat substitute (2 servings)
- 1 cup ice cream

### Dinner
- Meat (3 oz.)
- Bread substitute (2 servings)
- Vegetables
- Pork chop, lean (no bone)
- 1 cup noodles
- Peas and carrots
- Tossed salad
- 2 tsp.
- 2 slices
- Fruit in season
- 2 cookies
- 1 cup

### Evening Snack
- Milk
- Bread substitute (2 servings)
- 1 cup
- 2 cups popcorn
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<tr>
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<th>DATE</th>
<th>OPPONENT</th>
<th>SITE</th>
<th>TIME</th>
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