Stew Smith: Overall, it's important to keep up the habit of moving more and eating foods that are better for you. These tips can help you prevent unneeded weight gain. Also helpful is the Fundamentals of Nutrition Charts below:

<table>
<thead>
<tr>
<th>Morning Meal (Serving = fist size): Eat 2-3 servings of any *minimal fat 1 qt water</th>
<th>Proteins - boiled egg whites, yogurt, milk, lean meats, protein shake, vegetable beef stew...</th>
<th>Carb/Protein mix - some fruits like grapes, bananas, blueberries, cereal with milk...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid Morning Meal Eat 1 serving</td>
<td>Slimfast meal bar, boiled egg, Go-Gurt, Tuna...</td>
<td>Fruit salad, apple, orange, banana etc...</td>
</tr>
<tr>
<td>Lunch 1 qt water</td>
<td>Chicken, tuna, fish, lean meat sandwich on wheat bread, no mayo - mix meat with salad</td>
<td>Mixed salads with variety of vegetables - green leafy lettuce, broccoli, carrots, tomatoes, onion</td>
</tr>
<tr>
<td>Mid Afternoon Meal 1 qt water</td>
<td>Optional - peanuts, almonds, high calories</td>
<td>Optional - juice, fruit, vegetable - small salad</td>
</tr>
<tr>
<td>Evening Meal 1 qt water</td>
<td>Lean chicken, fish, meat, broiled NOT FRIED</td>
<td>Large Salad - above eggplant</td>
</tr>
</tbody>
</table>

### Pre - Post Workout Meals

<table>
<thead>
<tr>
<th>Before Your Cardio Workout</th>
<th>Before Your Lifting or PT Workout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbohydrates: 75-100%</td>
<td>Carbohydrates: 75% &amp; Protein 25%</td>
</tr>
<tr>
<td>Prior to running, swimming, biking etc. at medium to high intensity levels for 30-40 minutes, it's best to eat a small snack to boost sugar levels in your body, especially if your workout is before your morning meal. After a night of sleeping and not eating for over 10-12 hours, you need a boost to help you get through the workout. Fruit or fruit juice is fine 20 minutes prior to and during workout. Foods with small amounts of protein can be eaten pre-workout and will help post workout requirements of protein too. Sample Ideas for pre-workout snack are:</td>
<td>1-2 hours prior to lifting eat protein foods and carbohydrates so the protein is there for you after the workout. Lifting weights and doing high repetition calisthenics will break down your muscles and require protein immediately after your workout - within 30 minutes. Foods high in carbohydrates to replace the loss of glycogen stores are needed within this time too. A great rule of thumb - after you work out, eat protein, carbohydrates and minimize fatty foods. Foods that should be considered are:</td>
</tr>
<tr>
<td>Bananas, apples, oranges, carrots, juice, Gatorade, (any fruit</td>
<td>Pre-workout ideas for lifters / PTers: Bananas, berries, boiled</td>
</tr>
</tbody>
</table>
### Pre - Post Workout Meals

of your choice). Before workouts longer than 30-40 minutes, add some protein to stabilize absorption rates so you can last longer: Eat the following about 1-2 hours prior to exercise:

Yogurt, protein drink*, milk, boiled egg, slice of meat or cheese, or Slimfast meal replacement bar. Sip water and carbohydrate drinks throughout the workout.*Met-rx powder is highly recommended - I like to take 1/2 of recommended amount.

eggs, tuna fish, Met-rx Drink / bar. Protein or carb replacement drinks are great if post workout occurs mid-day or early morning. See above meal options for protein and carbohydrates sources and these below: Tuna, chicken, boiled eggs, and green leafy salads with tomatoes, broccoli, cucumber, carrots, onions, and light dressing or oil.

### Post Workout Meals

The key is to replace carbohydrates and electrolytes lost during the workout - drink Powerade / Gatorade immediately after workout. Another important factor is to add protein to help rebuild muscles - see above meal / snack ideas within 30 minutes of working out.

### Protein Rich Foods

<table>
<thead>
<tr>
<th>Choose More of</th>
<th>Limit or omit these foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish</td>
<td>Fried Chicken / poultry</td>
</tr>
<tr>
<td>No skin</td>
<td>Fatty ground meat</td>
</tr>
<tr>
<td>No fat meats (all trimmed)</td>
<td>Liver / Organ meats</td>
</tr>
<tr>
<td>Smaller servings of meat, seafood, poultry</td>
<td>Bacon</td>
</tr>
<tr>
<td>Beans, peanut butter, tofu, whole wheat pasta, nuts</td>
<td>Sausage and other high fat meats</td>
</tr>
<tr>
<td>Egg whites</td>
<td>Eggs with yolks</td>
</tr>
<tr>
<td>Protein Bars (if needed)</td>
<td>2% or whole milk / ice cream/ whipped cream</td>
</tr>
<tr>
<td>Skim or 1% milk</td>
<td>Whole milk cheeses / sour cream</td>
</tr>
<tr>
<td>Yogurt, low fat cheese</td>
<td></td>
</tr>
</tbody>
</table>

### Vitamin / Carbohydrate Rich Foods

<table>
<thead>
<tr>
<th>Choose More of</th>
<th>Limit or omit these foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw, steamed, boiled, colorful vegetables</td>
<td>Fat - Fried vegetables</td>
</tr>
<tr>
<td>Green leafy / romaine lettuce</td>
<td>Iceberg lettuce (little value)</td>
</tr>
<tr>
<td>Whole grain / multi grain bread / pasta</td>
<td>White bread / regular pasta</td>
</tr>
<tr>
<td>Fruit juice seasoning (lime / lemon etc)</td>
<td>Cream sauce, cheese sauce, butter</td>
</tr>
<tr>
<td>Fruits with skin – apples, pears, peaches...</td>
<td>Canned fruits in syrup</td>
</tr>
<tr>
<td>Other fruits – banana, oranges, grapes</td>
<td>Coconut – high in saturated fat</td>
</tr>
</tbody>
</table>

### Foods with Fat / Healthful Nutrients

<table>
<thead>
<tr>
<th>Choose More of</th>
<th>Limit or omit these foods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non trans-fat bread spreads</td>
<td>Avoid partially hydrogenated oils</td>
</tr>
<tr>
<td>Some heart healthy margarines</td>
<td>Cooking with lard, meat fat, grease</td>
</tr>
<tr>
<td>Cooking with olive oils, sunflower oil ...</td>
<td>Salad dressings with cheese / creams</td>
</tr>
<tr>
<td>Salad dressing without saturated fat</td>
<td>Some chocolates – high in saturated fat</td>
</tr>
<tr>
<td>Nuts in moderation – high calorie content</td>
<td>Cakes, cookies, pies, chips, crackers</td>
</tr>
<tr>
<td></td>
<td>Fried rice / beans, Donuts, pastries, croissants</td>
</tr>
</tbody>
</table>
How to Prepare for 2 Mile Army Run

by Anna Ursu

Any soldier has in his vocabulary these four important words: Army Physical Fitness Test (or APFT). This test is mandatory in the United States Army and each soldier must pass it at least twice a year. In the Fitness Center articles you can find extremely useful information to prepare for any of part of the test (push-ups, sit-ups and the two-mile run). In this article you will find useful information to train yourself for the running exam using the treadmill as training equipment.

Before I list a sequence of preset treadmill workouts that can be useful during your preparation, I want to focus a little on what the Army Fitness Running Test requirements are.

The running test is in fact a 2 mile run meant to test your leg muscles endurance and your cardio respiratory fitness. The basic rules are pretty simple:
- The faster you run, the better you score.
- You are not allowed to walk
- If you get minimum 60 points to maximum 100 points, you pass.

The scores depend on gender and age. The treadmill workouts recommended in this article can be easily done by men or women between 17 and 31. So I will list the Army standards only for these age groups, which will help when comparing your goals with the treadmill workouts settings.

**For men, the standards for the minimum and maximum time scores are:**

Age (17-21) - Minimum (15.54 minutes) -- Maximum (13.00 minutes)
Age (22-26) - Minimum (16.36 minutes) -- Maximum (13.00 minutes)

**For women the following time score standards apply:**

Age (17-21) - Minimum (18.54 minutes) -- Maximum (15.36 minutes)
Age (22-26) - Minimum (19.36 minutes) -- Maximum (15.36 minutes)

If you consider that you can run at a constant pace for 2 miles, the Army standards can be translated into these speed goals:

**For Men:**

Age (17-21) - Minimum pace: 7.73 mph -- Max pace: 9.24 mph
Age (22-26) - Minimum pace: 7.34 mph -- Max pace: 9.24 mph

**For Women:**

Age (17-21) - Minimum pace: 6.48 mph -- Max pace: 7.82 mph
Age (22-26) - Minimum pace: 6.2 mph -- Max pace: 7.82 mph

Once you have your goals set and you know how fast you want to run, you can begin the preparation.

Now, no matter what goals you have set for yourself, the beginning is always hard. As a beginner you have to start with a simple exercise: run at your own pace, and in the process learn to understand your body. You can use the treadmill manual mode to test how long you can resist, and at what pace. Pay attention to your pains and learn how to prevent them in time so you don't hurt yourself. Learn how to breathe rhythmically and lift your knees. And very important, alternate test runs with rest. Any beginner needs 5-6 weeks to get his body accustomed to this sport. And during this time you don't have to overdo it.

From the 7th week you can start preparing for the 2 mile test seriously.
At this step, this is what you need to know. The most efficient running workouts are those based on Intervals. Interval workouts (or speed based exercises) have all the ingredients needed to improve your muscles endurance and your cardiovascular system performance. And this is exactly what the Army Physical Fitness exam tests you for.

All treadmills have preset Interval Workouts included, with different difficulty levels to choose from. The speed value is usually preset in the consoles memory and the workouts settings are different from one treadmill to another.

Below you will find a series of Interval workouts that can prepare you for this test so you can pass it. The workouts speed values are based on the preset interval workouts included in my treadmill console.
If your treadmill doesn't have the same speed values for preset Interval Workouts, you can create your own custom workout very easily (this is another option most treadmills come with).
How to Prepare for 2 Mile Army Run

Level 1 Interval Workout (for beginners):
Warm up: 1.0 mph speed for 2 minutes and 1.5 mph speed for another 2 minutes
Workout:
Segment 1: 2.0 mph for 90 seconds
Segment 2: 4 mph for 30 seconds
Repeat segment 1-2 for 24 times (48 minutes) to finish the 2 mile run.
Cool down: at 1.5 mph for 2 minutes than at 1.0 mph for another 2 minutes
Yes, this is a terrible result, but it's very useful for beginners. You don't need to get injured from your first week of hard training. If you feel you can do it, increase the speed values slowly.
After a few weeks, you can start following this workouts routine:

Level 6 Interval Workout (for intermediate runners):
Warm up: 1.5 mph speed for 2 minutes and 2.3 mph speed for another 2 minutes.
Workout:
Segment 1: 3.0 mph for 90 seconds
Segment 2: 6.5 mph for 30 seconds
Repeat segment 1-2 for 16 times (32 minutes) to finish the 2 mile run.
Cool down: at 2.3 mph for 2 minutes than at 1.5 mph for another 2 minutes.
When you finish this exercise and you feel you can take more, it means you are ready to increase the interval difficulty until you can finish the 2 mile run in less than 20 minutes. Following a consistent training routine you will be able to do this exercise:

Level 10 Interval Workout (for advanced runners):
Warm up: 2 mph speed for 2 minutes and 3 mph speed for another 2 minutes.
Workout:
Segment 1: 6.2 mph for 90 seconds
Segment 2: 7.6 mph for 30 seconds
Repeat segment 1-2 for 10 times (20 minutes) to finish the 2 mile run.
Cool down: at 3 mph for 2 minutes than at 2 mph for another 2 minutes.
Mathematically at the end of this workout you can finish the 2 mile run in 18.3 seconds (these values are with approximation). Comparing this data with the women standard scores from above, it means you passed.

For men, Level 10 Interval workout speed intensity is different:
Warm up: 2 mph speed for 2 minutes and 3 mph speed for another 2 minutes.
Workout:
Segment 1: 7.1 mph for 90 seconds
Segment 2: 9 mph for 30 seconds
Repeat segment 1-2 for 8 times (16 minutes) to finish the 2 mile run.
Cool down: at 3 mph for 2 minutes than at 2 mph for another 2 minutes.

Ideally is to control your heart rate during the interval workouts. This way you can make sure you don't overstress your body by working out at an intensity level you are not yet prepared for. Another advice is to not skip the warm up and cool down steps, no matter how good in shape you are. This helps to prevent injuries.

In the end I would like to point out that this article is simply meant to provide inspiration for those who want to prepare for the running test, but don't know where to begin. The treadmill is not a 100% replacement for outdoor running and you still need to go on the track to test yourself in an environment similar to the Army Physical Fitness Test requirements. But it's good to know that the treadmill can be a convenient training companion at need.

Treadmills with Preset Military Workouts
This is an article written by Anna Ursu, treadmill user and runner. Find more useful treadmill workouts and tips on her website, RunReviews.
**PUSH-UP**

1. Assume front leaning rest position
2. Feet together or up to 12 inches apart (measured between the feet)
3. When viewed from the side, body should form general straight line from shoulders to ankles
4. Lower entire body as a single unit until the upper arms are at least parallel to the ground
5. Return to starting position by raising entire body until arms are fully extended
6. Body must remain ridged, in general straight line and move as one unit
7. At end of each repetition the scorer will state the number of repetitions performed correctly.

**Push-up failed repetition**

1. Fail to keep body in generally straight
2. Do not lower body low enough to where upper arms are at least parallel to the ground
3. Fail to extend arms completely in the up position
4. Feet spread more than 12 inches apart
5. Grader may stop the cadet before 10th repetition to instruct the cadet on the errors being made. Cadet must go to the back of the line and may start again.

**Termination**

1. Rest on the ground
2. Raise either hand or foot from the ground

**Note:**

1. Rest position the cadet may sag in the middle or flex back
2. May bend knees, but may not support most of the cadet’s weight on the cadet’s legs
3. May reposition hands and/or feet as long as they remain in contact with the ground
4. Must return to starting position for repetition to count
5. See Figure A-2. Push-up additional check points.

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**Figure A-2. Push-up additional checkpoints**

A-25. During the push-up event, scorers sit or kneel 3 feet from the Soldier’s left or right shoulder at a 45-degree angle (refer to Figure A-2). Additional checkpoints to explain and demonstrate for the push-up event are as follows:

- “Your chest may touch the ground during the push-up as long as the contact does not provide an advantage. You cannot bounce off the ground.”
- “If a mat is used, your entire body must be on the mat. Sleeping mats are not authorized for use.”
- “Your feet will not be braced during the push-up event.”
- “You may do the push-up event on your fists.”
- “You may not cross your feet while doing the push-up event.”
- “You may not take any APFT event in bare feet.”
- “You should not wear glasses while performing the push-up event.”

Prepared by the NU Office of the Commandant - Reference Army FM 7-22, Oct 2012 - Conducting an NUPFT
**SIT-UP**

Starting Position:
1. Lay on back with knees at 90-degree angle
2. Feet together of up to 12 inches apart (measured between the feet)
3. Another person will hold ankles with hands only
4. Heel is only part of foot that must stay in contact with the ground
5. Fingers interlocked behind head and backs of hands touching the ground
6. Arms or elbows need not touch the ground

Vertical (up) and Lowering (down) positions
1. Raise upper body forward to, or beyond, the vertical position (base of the neck is above the base of the spine)
2. Lower body until bottom of shoulder blades touch the ground (hand, arms, elbows need not touch the ground)
3. At end of each repetition the scorer will state the number of repetitions performed correctly.
4. Up position is the only rest position

Failed repetition
1. Fail to reach vertical position
2. Fail to keep fingers interlocked behind the head
3. Arch or bow back or raise buttocks off the ground
4. Legs and knees extend beyond 90-degrees
5. Grader may stop the cadet before 10th repetition to instruct the cadet on the errors being made. Cadet must go to the back of the line and may start again.

Termination
1. Stop and rest in down position (must make continuous movement to Sit-up)
2. May not use hands to pull or push self into the up position

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**Figure A-4. Sit-up additional checkpoints**

A-28. During the sit-up event, the scorer kneels or sits 3 feet from the Soldier’s left or right hip. The scorer’s head should be even with the Soldier’s shoulder when he is in the vertical (up) position (refer to Figure A-4). Additional checkpoints to explain and demonstrate for the sit-up event are as follows:
- “If a mat is used, your entire body must be on the mat. Sleeping mats are not authorized for use.”
- “You may not swing your arms or use your hands to pull yourself up or push off the ground to obtain the up position. If this occurs your performance in the event will be terminated.”
- “You may wiggle to obtain the up position, but while in the up position, you may not use your elbows or any part of the arms to look on to or brace against the legs. Your elbows can go either inside or outside the knees, but may not be used to hold yourself in the up position. If this occurs your performance in the event will be terminated.”
- “During your performance of the sit-up, your fingers must be interlocked behind your head. As long as any of your fingers are overlapping to any degree, they are considered to be interlocked (Figure A-5). If they do not remain interlocked, that repetition will not count and the scorer will repeat the number of the last correct repetition performed.”
- “Both heels must stay in contact with the ground (Figure A-5). If either foot breaks contact with the ground during a repetition, that repetition will not count and the scorer will repeat the number of the last correct repetition performed.”

**Figure A-5. Sit-up hand and feet position**

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