# Prepping for the Mud Run 2009

**VAFB-HAWC**

**606-2221**

# Prepping for the Mud Run

## Considerations:

- **Distance**
  - 5 miles with obstacles!!!
- **Training & Injury prevention**
  - Steady increase each week, no more than 10% increases in mileage/week
  - Vary training surface: run trails, sand/beach, hills
  - Running specific strength/flexibility training- especially core & lower body
  - Resistance training & cycling will help strengthen knees (ligaments & muscles) & protect from torque-related injuries
  - Websites
- **Nutrition**
  - Food is fuel
  - Food for recovery

# Want to run fast? Run uphill

http://www.runnersworld.com/article/0,7120,s6-238-263-264-12079-0,00.html

**Uphill Gains**- Hit the hill, make it fast and short and get the max amount of training effect with the min amount of injury risk.

- Build leg strength with hill running. Run all-out up a steep hill, but we keep it to 10 secs to avoid becoming fatigued.
- Run no more than 10-sec repeats also reduces injury risk by limiting fast-running time. Hills by nature lessen the risk of injury because the slope shortens the distance you have to "fall" or land, reducing impact.

# Running Form uphill

http://www.runnersworld.com/article/0,7120,s6-238-263-264-12863-0,00.html

**HEAD:** ‘Keep head & chest up. Don't slouch’ says Olympian Goucher.

**EYES:** Keep your body upright, ‘fix eyes directly ahead of you, not down at your feet,’ says cross-country champ Jennings.

**HANDS:** "Keep hands loose, no fists," says Schlentz, who coached Olympian Kate Fonshell.

**LEGS:** "Push legs off and up, rather than into, the hill," says Goucher. This helps you feel "light," as if you're "springing" up the hill.

**TORSO:** "Lean forward," says Jennings. "It maintains momentum."

**ARMS:** "Concentrate on overusing the arms to really power up, so your running almost simulates sprinting,“ says Salazar. Arms should form a 90-degree angle at the elbow & swing straight back &forth, not across your body.

**FEET:** "Get up on your forefeet and take shorter strides," says Jennings. "Run with punctuation."

**GOING DOWN:** "Your feet should land underneath you," says Schlentz. "This produces minimal shock on the body.“

**SHORT ON TIME:** Short hills provide max training effect w/ min. injury risk, says elite coach Hudson. Start w/ 3-4 repetitions up a hill about 60 to 80 meters long at top speed. Recover fully between runs.

# Core Exercises for Runners: 1

http://www.runnersworld.com/article/0,7120,s6-238-263--13030-1-1X2X3X4-5,00.html

**Superman**

**What It Hits:** transversus abdominis (deep abs) and erector spinae (lower back)

Start facedown on the floor, with your arms and legs extended out front. Raise your head, your left arm, and right leg about five inches off the floor. Hold for three counts, then lower. Repeat with your right arm and left leg. Do up to 10 reps on each side.

**Keep It Honest:** Don't raise your shoulders too much.

**Make It Harder:** Lift both arms and legs at the same time.

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**Bridge**

**What It Hits:** glutes and hamstrings

Lie faceup on the floor, with your knees bent 90 degrees, your feet on the floor. Lift your hips and back off the floor until your body forms a straight line from your shoulders to your knees. Hold for five to 10 seconds. Lower to the floor and repeat 10 to 12 times.

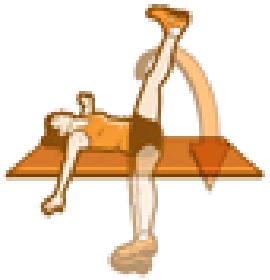
**Keep It Honest:** Squeeze your glutes at the top of the movement, and don't let your spine sag.

**Make It Harder:** Straighten one leg once your hips are lifted.

# Core Exercises for Runners: 2

http://www.runnersworld.com/article/0,7120,s6-238-263--13030-1-1X2X3X4-5,00.html

**Metronome**



**What It Hits:** obliques

Lie faceup on the floor with your knees bent and raised over your hips, with your ankles parallel to the ground, your feet lifted, and your arms extended outward. Rotate your legs to the left side, bringing your knees as close to the floor as possible without touching.
Return to the center, then move your knees to the right side. Do 10 to 12 reps on each side.

**Keep It Honest:** Make sure not to swing your hips or use momentum; start the movement from your core and continue to move slowly from side to side.

**Make It Harder:** Keep your legs straight.

# Core Exercises for Runners: 3

http://www.runnersworld.com/article/0,7120,s6-238-263--13030-1-1X2X3X4-5,00.html

**Plank Lift**

**What It Hits:** transversus abdominis and lower back

Begin facedown on the floor, propped up on your forearms, with knees and feet together. With your elbows under your shoulders, lift your torso, legs, and hips in a straight line from head to heels. Hold for 10 seconds. Raise your right leg a few inches, keeping the rest of the body still. Lower and repeat with your left leg.

**Keep It Honest:** Pull in your belly and don't let your hips sag.

**Make It Harder:** Extend the time of the exercise. Each time you lift your leg, hold it for 15 to 20 seconds.

# Core Exercises for Runners: 4

http://www.runnersworld.com/article/0,7120,s6-238-263--13030-1-1X2X3X4-5,00.html

**Side Plank**

**What It Hits:** obliques, transversus abdominis, lower back, hips, and glutes

Lie on your right side, supporting your upper body on your right forearm, with your left arm at your left side. Lift your hips and, keeping your body weight supported on the forearm and the side of the right foot, extend your left arm above your shoulder. Hold this position for 10 to 30 seconds. Switch sides and repeat.

**Keep It Honest:** Keep your hips up; don't let them sag.

**Make It Harder:** Support your upper body with your right hand, instead of your forearm.

# Common Mistakes

http://www.runnersworld.com/article/0,7120,s6-238-263--13030-1-1X2X3X4-5,00.html

**The Mistake: You're a creature of habit**
Even if you've moved beyond crunches, you may have slipped into a routine. "You need to constantly challenge your muscles to get results," says running coach Sam Murphy, coauthor of Running Well.

**The Fix:** Mix it up. Fine-tune your workout to make it more difficult. Try balancing on one leg or changing your arm position. At the gym, use devices like stability balls or balance discs, unstable platforms that force your core muscles to work harder to keep you steady. And as a rule, McMillan says, change your routine around every six weeks or so.

**The Mistake: You whip through your workouts**
If you're flying through moves, you're using momentum, not muscles.
**The Fix:** Slow it down. Exercises like the plank, which require holding one position for 10 to 60 seconds, force you to work your muscles continuously. Even in exercises that involve repetitions, make steady, not rapid-fire, movements. "It takes intention," says well-known musculoskeletal therapist Phil Wharton. "Don't rush through them, and make sure you're doing them properly."

**The Mistake: You ignore what you don't see**
Runners often have weak backs because they just forget about them, says Paul Frediani, a USA Triathlon coach in New York City. "But when you're running, especially for a long time, those muscles in the lower back and along the spine are crucial for providing stability and support."

**The Fix:** Include at least one exercise that hits the lower back and glutes in each workout. Moves like the bridge and superman, build muscles that support and protect the spine.

# Core Workout: 1

http://www.runnersworld.com/article/0,7120,s6-238-263-266-12756-0,00.html

**Squats With a Stability Ball**
Rest a ball between your back and a wall; squat until your knees are bent 90 degrees.

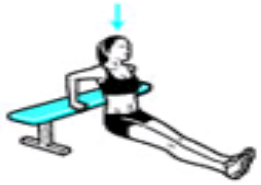
**Push-Ups With Ball**
Rest your knees, shins, or toes on a ball.

**Lunges**
Do them either regular or rest your back leg on a ball and just bend and straighten front knee. Great for balance.

**Plank**
Elbows under shoulders, abs tight, rest on toes, hold as long as possible. (I topped out at two sets of 1:45 holds.)

# Core Workout: 2

http://www.runnersworld.com/article/0,7120,s6-238-263-266-12756-0,00.html



**Triceps Dips**
Rest your palms, fingers forward, on a table or chair, your heels on the ground, and bend your elbows until they're bent 90 degrees.

**Sit-Ups on the Ball**
The classic: feet flat on the floor, neck relaxed, abs the primary muscles working.

**Back Extensions**
Rest your torso on the ball and put toes on floor. Hands behind your neck, lean forward, then straighten your back.

**Oblique Twists on Ball**
Lift up and twist your right shoulder toward your left knee, then lower; repeat on other side.

# Faster in Five: 1-3

http://www.runnersworld.com/article/0,7120,s6-238-263-266-11273-0,00.html

**Single-leg Squat**
Squat down on one foot until your leg is bent about 50 degrees; push back up. "Keep your hips even, and your knee over your foot," says coach Bob Larsen. Once you've mastered the move, add dumbbells (start with 5 pounds).
**Reps:** 2 sets of 10; build to 3 sets of 12
**Strengthens:** Quads and glutes

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**Balance Run**
Stand on a flat-bottomed stability trainer (or a narrow board). Hold light dumbbells (2 to 5 pounds) and swing your arms in a running motion. Keep your knees slightly bent and your abs tight.
**Reps:** 3 sets of 30 seconds
**Strengthens:** Core muscles and hones balance

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**Heel Raises**
Stand on a curb or platform with your heels over the edge. Lift up onto your toes, raise one foot and slowly lower. Once you have the move down, add dumbbells (start with 5 pounds).
**Reps:** 1 set of 8; build to 3 sets of 15
**Strengthens:** Calf muscles and Achilles tendon

# Faster in Five: 4-5

http://www.runnersworld.com/article/0,7120,s6-238-263-266-11273-0,00.html

**Hamstring Push-up**

Lie on the floor with your feet
on a chair or Swiss ball that's against a wall. Lift your butt off the floor, then lift one leg off the ball. Slowly lower your body to the floor, using the hamstring of the supporting leg.

**Reps:** One set of 8 on each leg; work up to 3 sets of 12

**Strengthens:** Hamstrings

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**Plank + Lift**

From a push-up position, drop onto your forearms. Focus on pulling your abdominals in. Then lift one foot about six inches (keep hips square to the floor), hold for five seconds, and repeat on other side.

**Reps:** Continue for 60 seconds, build to 3 minutes

**Strengthens:** Core and glutes individually

# Sample Workout

http://www.runnersworld.com/article/0,7120,s6-238-263-266-8164-0,00.html

To build speed and power, try one of these workouts the next time you're at the beach.

**Warm-up:** Run 10 minutes on the wet, hard-packed sand, gradually accelerating from a slow jog to training pace.

**Workout 1: (The Zigzag)**
*Head to the dry, soft sand for a 1 min hard run (< 1 min if your breathing gets out of control).
*Cut back to the firm sand for 1 minute of slow recovery running.
*Keep this zigzag pattern going until you've done five to 10 one-minute spurts.

**Workout 2: (Sand-Hill Ascents)**
*Find a tall sand hill that’s open to runners. Run to the top, or until breathing gets too hard to continue.
*Jog back down. Keep jogging around the hill until you've caught your breath.
*Do 5 to 15 ascents, depending on the height of the hill.

**Cool down:** Run 10 minutes easy on the hard-packed sand.

# “Rut Busters”- Intervals

http://www.runnersworld.com/article/0,7120,s6-242-304--13087-0,00.html

**WHAT:** Alternating sprints of a certain distance (such as 400 meters) w/ recovery laps; often done at a measured track

**WHY:** Sprinting at high speeds makes your body work harder & burns up to 30% more calories to keep up w/ the demand.

**HOW:** 4 x 400 meters hard (max speed), separated by an easy 400-meter recovery lap

- 8 x 200 meters hard, separated by an easy 200 meters
- 4 x 100 meters hard, walking back to the start between sprints to recover

# “Rut Busters”- Fartlek Training

http://www.runnersworld.com/article/0,7120,s6-242-304--13087-0,00.html

**WHAT:** A less formal version of intervals; the term actually means "speed play" in Swedish.

**WHY:** Like interval workouts, fartlek sessions make your body burn more calories to match the demand of running faster.

**HOW:** While out for a 45-min run, pick a tree or mailbox about 50 meters away. Run hard (max speed) until you reach it, then slow down until recovered. Continue alternating periods of hard running w/ recovery.

# "Rut Busters"- Hills

http://www.runnersworld.com/article/0,7120,s6-242-304--13087-0,00.html

- **WHAT:** This workout is exactly what it sounds like: running uphill for a period of time.

- **WHY:** Hills require more force to overcome the angle of the incline, leading to a challenging cardio workout; it's also a great way to strengthen the larger muscles of the legs.

- **HOW:** Find a steep hill 40 to 80 meters long. Follow this sequence, each time running up the hill and jogging back to recover. Start with 10 reps, progressing to 20:
  - 5 runs at 50 percent max speed
  - 2 to 3 runs at 80 percent max speed
  - 1 sprint at max speed

# Aches and Pains:

- Learn to Stretch
http://www.runnersworld.com/cda/toolscontent/0,7156,s6-380-384--260-0,00.html?toolName=What%20Hurts?

- Shin Splints
http://www.runnersworld.com/article/0,7120,s6-241-285--13077-0,00.html

- Foot Pain
http://www.runnersworld.com/article/0,7120,s6-241-286-289-12761-0,00.html

- Knees
http://www.runnersworld.com/article/0,7120,s6-241-285--13106-0,00.html
http://www.runnersworld.com/cda/toolscontent/0,7156,s6-241-285--7773-0,00.html?toolName=What%20Hurts?

- IT Band Syndrome
http://www.runnersworld.com/cda/toolscontent/0,7156,s6-241-290-291-2861-0,00.html?toolName=What%20Hurts?

- Back Pain
http://www.runnersworld.com/cda/toolscontent/0,7156,s6-241-290-291-404-0,00.html?toolName=What%20Hurts?

- Plantar Fasciitis
http://www.runnersworld.com/article/0,7120,s6-241-286--11327-0,00.html

# Food is Fuel

http://www.runnersworld.com/article/0,7120,s6-242-301--12845-0,00.html

- Days before the run, drink water and other fluids to stay hydrated.
  - Day of the run:
    - drink 16 oz of water 2-3 hours before the run
    - 8oz - 16oz before the start
- Eat moderate amounts of carbohydrates (avoid huge quantities) the night before the run. You could have trouble sleeping and get digestive problems if you load up on carbs. So don't overeat carbs!
- Eat breakfast to keep your blood sugar level and for energy to run. "There's no way to get enough fuel midrace to make up for the energy you missed at breakfast," says Jauguet.
- A light pre-run snack 30 – 60 minutes before the run can provide energy and level blood sugar during the run.
  - Examples: fruit with cottage cheese or half bagel with peanut butter/jam or protein bar

# Food for Recovery

http://www.runnersworld.com/article/0,7120,s6-242-301--13072-0,00.html

- "Your body needs nutrients to build muscle and gain fitness, but it's not always clear when, what, and how much you should eat," says Deborah Shulman, Ph.D., a sports nutritionist in Colorado.
- Read the post-run scenarios on the website above to find out what, when, and how much should you eat post-run.  It all depends on the workout!