

Proper Muscle Care for Distance Runners

Ohio Association for Health, Physical Education, Recreation and Dance

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Proper Diet

- **60-70% carbohydrate**—check out myplate.gov; plenty of fruits, veggies, pasta and grains
- Important for energy and hydration
- 1 gram of carbs stores 3 grams of water in muscles
- For a prize: Which are muscle signs of low carbohydrate storage in muscles known as glycogen depletion?
- A. heaviness
- B fatigue
- C. soreness even after warm up
- D. slower race times
- E. All of the above
- **Protein needs**
- 2. Endurance athletes **1.2 g/kg** for moderate training, for intense endurance training like marathons or tri-athlons, increase to **1.6g/kg**
- 3. Sedentary persons protein need is **.8g/kg** body weight
- to convert pounds to kg, divide by pounds by 2.2

Protein needs for Runners

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Early Sign of Protein Depletion on Muscles

- **Sweat develops ammonia smell** due to low carb diet;
- **Body turns to muscles for glucose**
- To correct:
- **Eat more carbs like potatoes**
- **Cut back on workouts until resolved**

Water

- **Superior to sports drinks** unless event greater than 1 hour
- **3% dehydration of body weight** can result in 20 seconds or more slowing of race pace
- **Urine color:** pale yellow to clear good, dark bad
- **Weight loss:** monitor before and after workout and rehydrate to back to starting weight unless runner has history of eating disorders
- **Know signs of hyponatremia (small females at greater risk):** dilution of electrolytes: headache, dizziness, salt craving

Potassium

- **Body needs 2200 mg per day!**
- **Low potassium can lead to muscle cramps and even cardiac issues**
- **For a prize, list 2 common foods that provide a large amount of potassium?**
- **Avoid supplements unless under doctor's care, too easy to unbalance body and better to get through diet**

Important Mineral Supplement for Muscles

- **Magnesium important for preventing cramps**
- (for a prize, which type is best to take?)
- A. magnesium oxide
- B. magnesium carbonate
- C. magnesium glycinate
- **Take 400mg for starters check with Dr. if you have any cardiac issues or special health concerns**
- **Foot/toe cramps at night: sign of depletion**

More about magnesium

- **Hard to get in diet (found in pumpkin seeds, avocados)**
- **Acid blocker meds lower amount**
- **Low magnesium also can lead to diabetes, asthma issues, muscle pain, sleep issues, migraines**
- **Best source Klaire Labs magnesium glycinate 100 vegetarian capsules try at Wellness Pharmacy 205-879-6551 MJW code**

Vitamin D3

- Low levels result in muscle soreness
- New recommended daily amount 5000IU capsules (I use solgar D3 5000IU)
- (toxic levels are 10,000 so 5000 IU is very safe)
- **Blood levels need to be above 52ng/ml have checked every year** this dose increased my levels from 21 to 55ng/ml! no more muscle soreness in winter

Other D3 Benefits

- **Bones:**
- **Builds immune system (levels above 52ng/ml lower risk of colon and breast cancer by 50%)**
- **Helps with SAD**

Substances to Avoid

- **Alcohol:** severe dehydrator; illegal for many young athletes
- **Caffeine:** severe dehydrator; can lower magnesium and calcium levels causing cramps, soreness; also increases stress hormones, interferes with sleep

Muscle Care During Workouts

- Always begin with warm up
- Do nothing fast until you are sweating
- Always cool down by low level walking/jogging to dissipate waste products
- Stop workout immediately if muscle tightness or pain gets above 5 (on scale of 1-10) and persists

Muscle First Aid for Strains

- Ice massage 10 min intervals with 10 more more rest intervals
- Avoid heat for at least 48 hours or if swelling still present
- Use of physio-tape may aid in recovery

Muscle Recovery Clothing

- **Tights and shorts:** have worked well for me; take care to follow care instructions often no dryer time and wash cold; see samples
- **Calf sleeves:** like Zenzah best, see examples
- **Other? Please share**

Muscle Recovery Equipment

- **Foam roller—see example;** good for flushing muscles after workouts
- **Trigger point roller—see example;** good for trigger point work if you feel knots in muscles
- **Deep massage roller—see example:** good for deep scar tissue, however can make muscles sore if you use daily
- **Other? Please share**

Stretching Guidelines

- Only stretch muscles when warm
- Ice massage muscles on stretch after workout especially if history of pulls

For a prize, when should you not stretch muscles?

For another prize, what type of Achilles tendon stretch should you avoid?

Other questions?

- Ask away
- If you think of a question later on feel free to contact me anytime
- Thanks for coming! Kitty

