

## There's no magic bullet for fitness, but magnesium comes close



By [Casey Seidenberg](#) November 18, 2016 Washington Post

My oldest son's basketball tryouts are looming this week. He cares deeply about making the team and asked me what he should do to prepare. I suggested he sleep and eat well before the tryouts, which may not have been the novel or life-changing answer he was seeking. I gather he was hoping for a magic bullet, something that would make his muscles strong and flexible, deliver him energy, render him well rested, and keep stress at bay.

Now that I think of it, buddy, there just may be a magic mineral that does all of these things. Magnesium helps with energy, muscle strength, flexibility, sleep and stress management — everything you need.

Basketball tryouts are no joke. They involve hours of running, pivoting, head-to-toe muscle use and quick reflexes. Magnesium contributes to flexibility and helps to prevent injury by loosening tight muscles. Without enough magnesium, muscles can't properly relax, possibly causing cramps. Low magnesium can create a buildup of lactic acid, known to cause post-workout pain and tightness. Also, much of the body's energy comes from ATP, a molecule that captures chemical energy from food and uses it to fuel other processes in the body. ATP production depends on magnesium.

Magnesium obviously won't build my son's arm muscles in time for tryouts, but it does help the body produce more [insulin-like growth factor](#), an essential part of long-term muscle growth and strength.

Magnesium helps to balance and control stress hormones. Specifically, magnesium is essential for the production of serotonin, which is responsible for relaxing the nervous system and lifting moods. Serotonin also contributes to healthy sleep. A lack of magnesium upends sleep not only because of its role in serotonin production but also because it topples the sleep regulating hormone melatonin.

Magnesium is one of the essential electrolytes needed for efficient hydration. Sorry to disappoint you kids that were hoping I'd recommend a Gatorade for your tryouts; instead, you need to eat real magnesium and potassium-rich foods, and drink lots of water. A few magnesium stars include [leafy green vegetables](#), [pumpkin seeds](#), flax seeds, almonds, cashews, pecans, walnuts, brown rice, avocado, beans, [raw cacao](#), edamame and [seaweed](#).

A winning smile won't command my son a spot on the basketball team, but perhaps it will reveal him as a positive, eager player. Low magnesium leaves saliva with excess calcium and phosphorous, which can damage teeth and harm that winning smile.

Magnesium also builds strong bones, maintains heart health, helps to prevent diabetes by regulating blood sugar, prevents inflammation and strokes, boosts immunity, preserves a proper PH balance in the body, and relieves constipation. Phew. Magnesium might really be that magic bullet as it performs an essential role in every almost bodily function.

In fact, in the emergency room, magnesium is considered a critical medication for emergency heart, asthma, pregnancy preeclampsia and other life-threatening conditions because it has a relaxing effect and is found in every tissue.

Modern life conspires to steal our magnesium. Caffeine, phosphoric acid in soda, too much salt, extreme sweating, alcohol, prolonged stress, antibiotics and other medications drain our bodies of the much-needed mineral.

So how can a teenage boy, trying out for a basketball team, or not, obtain the recommended daily intake of 410 mg of magnesium? He can eat meals such as oatmeal for breakfast; a brown rice, black bean and avocado burrito for lunch; a banana with almond butter as a snack; and roasted chicken, sesame noodles and a spinach salad for dinner. One of the most relaxing ways to absorb magnesium is to take a bath with magnesium or Epsom salts. Our skin is our largest organ for ingestion into the blood system so magnesium baths can both relax us and contribute to our magnesium intake.

Ensuring my son has healthy levels of this mineral is not going to secure his spot on the eighth-grade basketball team, but it will help him sleep well, boost his mood and lower his stress; make it less likely that his muscles cramp; and more likely that he is flexible and energetic. These are good outcomes any week of the year.