

## Wellness Topics

Our bodies have an amazing ability to heal themselves in almost all cases. Healing is a process with several steps that all have a purpose, though they can be uncomfortable at times. Here is a very simplified version of the phases of healing. The phases tend to overlap and the time frames are a rough estimate that are highly variable due to many factors and the individuality of each person.

1<sup>st</sup> phase: Inflammation (0-7 days after injury)—There is an increased blood flow to the injured area, which brings in cells that clean up dead or damaged tissue and call in cells for the proliferation phase.

2<sup>nd</sup> phase: Proliferation (7-21 days after injury)—Cells enter the injured area and lay down new tissue in a disorganized manner.

3<sup>rd</sup> phase: Maturation/Remodeling (21 days-1 year+)—New tissue gets reorganized into an organized, functional manner.<sup>10,11,12</sup>

The following topics are integral to the healing process and evidence-based recommendations are provided:

### Sleep

Recommendation: 7-9 hours of sleep per night for adults<sup>16</sup>

Why this matters: Growth hormone, which helps to facilitate the healing process, is released in the deeper stages of the sleep cycle. Not getting enough sleep, or having broken sleep, decreases growth hormone production and increases cortisol production, which can block or slow the healing process.<sup>1,2,3,4,5</sup> For more information about this fascinating topic, see Matthew Walker's book "Why We Sleep" and my handout for evidence-based sleep hygiene tips.

### Nutrition

This is a huge topic with an enormous amount of variables and diet recommendations tend to be highly specific to the individual person. I frequently recommend seeing one of our local experts on nutrition when people have nutritional questions or if I think someone may benefit from at least a consultation, which is most of the time. Here are some local options:

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Antonio Caliguiri, Health Coach (AC Nutrition and Wellness): [acnutritionandwellness.com](http://acnutritionandwellness.com)

### Hydration

Recommendation: 125 ounces of water for men and 91 ounces for women per day for normal daily activities with about 80% from beverages and 20% from food intake. So, **about 12 eight-ounce glasses of water for men and 9 for women.** This is for the "average" person in the US, however, we are all different and these amounts can vary due to differences in individual metabolism, diet, climate, and clothing. Other factors, such as heat stress and strenuous physical exercise, can increase these amounts as well. Most people's bodies regulate their hydration through thirst and the typical practice of drinking fluids with meals.<sup>13,14</sup> **Darker urine color and an increased sensation of thirst are good, simple indicators of dehydration.**<sup>34</sup>

Why this matters: Mild to moderate dehydration is associated with decreased mood and cognitive functioning<sup>31-37</sup>, increased headaches<sup>37,38</sup>, increased constipation, and increased death from coronary artery disease.<sup>40</sup> Staying properly hydrated can also help with weight loss due to

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increased metabolism and an increased feeling of fullness<sup>41-44</sup>. Older folks are most at risk for dehydration due to physiological factors (such as a decreased sense of thirst and medication side effects) and behavioral factors (such as wanting to avoid going to the bathroom multiple times at night, incontinence, or avoiding walking to the bathroom due to a fear of falling).<sup>45</sup>

## Stress

Recommendation: Various forms of psychotherapy, laughter, meditation, and yogic breathing are examples of interventions that have been shown to decrease the negative effects of stress.<sup>2,3</sup>

Why this matters: Stress leads to an increased production of cortisol (a hormone that has a negative impact on healing) as well as can contribute to sleep loss, which decreases growth hormone production, and thus blocks or slows the healing process.<sup>2,3</sup>

## Volunteering

Recommendation: Volunteering with 1 or 2 organizations for about 100 hours/year is shown to provide significant health benefits.<sup>9</sup>

Why this matters: In addition to the positive impact on those receiving assistance, studies show that people who volunteer on a regular basis lead healthier lives (correlation with increased life satisfaction, mental health, decreased depression, decreased chronic pain symptoms) and live longer (correlated with decreased all-cause mortality).<sup>6,7,8,9</sup>

## Flexibility

Recommendation: Static stretching for 30 second holds, 2-3 times, 5 days per week<sup>22-24</sup>

Why this matters: Static stretching has been shown to help prevent injuries for certain activities and is a core component in falls-prevention exercise programs.<sup>17-21, 29, 30</sup>

## Strength

Recommendation: Strength training of major muscle groups (legs, hips, back, abdomen, chest, shoulders and arms) 2-5 days per week for 30-60 minutes for adults<sup>15</sup>

Why this matters: Regular strength training has been shown to increase strength, increase bone mass density (lower the risk of osteoporosis), improve sleep, decrease depression, decrease all-cause mortality, reduce cognitive decline, and decrease the risk of falls.<sup>15,25, 26, 27</sup>

## Aerobic activity (e.g., brisk walking, running, hiking, cycling, swimming)

Recommendation: 150-300 minutes (30-60 minutes 5 days per week) of moderate to vigorous intensity aerobic exercise per week for adults<sup>15</sup>

Why this matters: People who exercise aerobically for this amount of time have been shown to have a decreased risk of diabetes, metabolic syndrome, and increased weight maintenance and executive functioning.<sup>15,28</sup>



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