The
Liker Health Report

Keeping People Focused on Staying Fit & Healthy

Summer 2019

A Magic Bullet for Fat Loss?

Interval Training vs. Moderate-Intensity Continuous Training

If you're a health conscious individual or someone's who's trying to lose that pesky body fat, you've probably heard about a variety of training types, but maybe you're not sure which is best. There are two main types that reduce body fat — moderate-intensity continuous training (MOD, for short) and interval training, which is subdivided into high-intensity interval training (HIIT) and sprint interval training (SIT). A review of the research in the *British Journal of Sports Medicine* concluded that interval training results in 28.5% greater fat loss than MOD. Researchers believe that the greater fat loss is the result of greater energy (fat) expenditure right after the interval training session.

Interval training entails bursts of activity followed by recovery, or rest periods. When performing HIIT, individuals exert "near maximal" efforts in which their heart rate reaches greater than or equal to 80% of their maximal heart rate. SIT is even more intense. Because the researchers had so much data to draw upon for their analysis, they were able to calculate total body fat percent loss per minute for MOD, HIIT, and SIT. The fat reductions were 0.0026% per minute for MOD; 0.0050% per minute for HIIT; and 0.0067% per minute for SIT. Interval training increases the body's metabolic rate for up to 48 hours after exercise and can be an addition to a MOD regimen.

Although the promise of quicker and greater fat loss is appealing, it's important to remember that interval training is not suitable for everyone. HIIT and SIT have a higher risk of muscle and joint pain, injury, and cardiac distress, particularly in older adults and individuals who are not accustomed to exercising at 80% or more of maximal heart rate. Before beginning any high intensity exercise program, check with your physician. As an added measure of safety for older adults, consider working out with a personal trainer or in a supervised setting.

RESEARCH PEARLS:

Bipolar Disorder & Parkinson's Disease

A recent study of 56,340 adults with bipolar disorder were followed to see how likely they were to develop Parkinson's Disease (PD) later on in life. Researchers found that these individuals developed PD at an earlier average age (64 vs. 73) compared to those who did not have bipolar disorder. The risk of developing PD increased by a factor of seven if they had pre-existing bipolar disorder. Additionally, if an individual had been hospitalized for treatment of bipolar once or twice a year, his or her risk of developing PD was four times higher than those who had been hospitalized less frequently. And if the bipolar disorder resulted in greater than two hospitalizations per year, these individuals' risk of PD was six times higher than those who went to the hospital less than once per year.

Neurology. 2019 May 22.

Blue Light & Insomnia

Screen Use Prior to Bed Disrupts Sleep

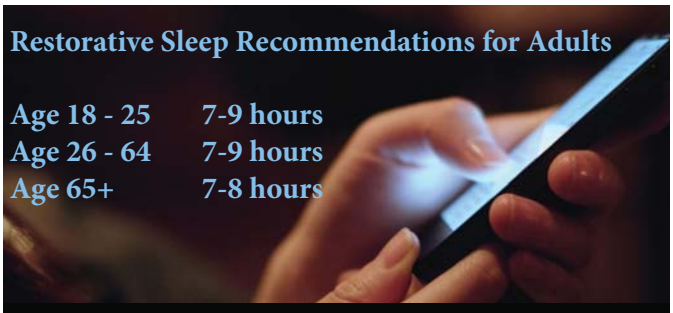
It turns out that blue light — from computers, tablets, televisions, smartphones and even energy-efficient lighting — has a dark side. Blue wavelengths of light are useful during the daytime because they help increase alertness, attention, and reaction time as well as mood improvement. But at nighttime, when it's time to go to sleep, blue light produces varying degrees of disruptiveness. It alters the body's normal circadian rhythm which leads to problems falling asleep, staying asleep, waking up tired, and daytime drowsiness the next day.

Blue light alters circadian rhythm by altering the body's hormone secretion. In response to blue light, more cortisol, a "daytime" hormone, is secreted and less melatonin, a "nighttime" hormone is secreted. So, after sundown, this makes your body think that you should be awake when in fact you should be sleeping or preparing to go to sleep.

Aside from the impact on sleep, blue light is potentially detrimental to health. Preliminary research suggests that light exposure at night (when you should be sleeping) may be related to obesity, diabetes, heart disease, and some types of cancer. The hypothesis is that lower melatonin levels may play a role. A Harvard study demonstrated that by shifting circadian rhythm in healthy people, blood sugar levels increased to the point of being considered pre-diabetic and leptin (the satiety hormone) levels decreased.

Tips to Improve Your Restorative Sleep

- Turn off all screens 2 to 3 hours before bedtime.
- Use a dim red light as a night light; it's the least likely to suppress melatonin secretion.
- Wear blue-blocking glasses if you use electronic devices at night; install an app on your phone that filters the blue wavelength at night.
- Get plenty of bright light exposure during the day.



Some people grunble that roses have thorns; I am grateful that thorns have roses.
Alphonse Karr

Dear Dr. Liker...

Are there any realistic ways to avoid glyphosate in foods?

You may have recently heard that nineteen out of twenty domestic brands of wine and beer tested positive for glyphosate residue. Glyphosate is the primary weed-killing ingredient in Roundup®. Glyphosate can enter the production cycle if it is sprayed directly on barley or other brewing components, or simply by "herbicide drift" from one sprayed crop to an unsprayed or organic crop.

The beer/wine study was sponsored by the United States Public Interest Research Group, a non-partisan advocacy group. Their findings are similar to other studies that detected glyphosate residue in nearly all conventionally grown crops and many organic crops (due to the "drift"). Although the detected levels were below the EPA's risk tolerance, it is highly likely that even low levels impact human health. Yet, because Roundup® use is so ubiquitous among American farmers, there is a high probability of a cumulative health effect. Research suggests that glyphosate can (1) stimulate cancer cell growth; (2) disrupt the endocrine system; and (3) decrease bacterial diversity in the gut microbiome.

To safeguard your health, eat organically-grown produce and pasture-raised meats. This does not guarantee that you won't ingest some glyphosate residue, but it will certainly be less. And of course, avoid weed-killers and other chemical pesticides.

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