



September 7 2018

### **Sitting is the New Smoking**

Most adults within the US sit 9-12 hours per day. More evidence is emerging showing a strong association with sedentary lifestyle and cardiovascular disease and all causes of mortality (Diaz et al). With these findings over the last several years, researchers are looking into if short breaks from sitting would be beneficial to one's health. Some of the latest research is finding that those who had interrupted their sedentary time with small amounts of movement every 30minutes had the lowest risk of all causes of mortality. A study performed by Dempsey and colleagues, found that just 3 minutes of walking or simple body weight resistance exercises every 30minutes had positive results in regards to metabolic factors that relate to type 2 diabetes and cardiovascular disease. The short segments of movement throughout the day should not replace American College of Sports Medicine minimum recommended amounts of exercise for cardiovascular, strength and flexibility fitness but be in addition to as to prevent long hours of being sedentary.

## **Texas DPS Fitness Wellness Unit**

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### **Muscle Strength Loss Due to Detraining**

People are encouraged to incorporate regular bouts of resistance training. However, often times unanticipated issues such as illness or injuries can arise and side line a person temporarily. For some who are trying to achieve strength gains yet encounter something that causes them to cease training, it can be discouraging. Researchers have looked into the rate of detraining in cardiovascular and resistance training. A study performed by Klausen and colleagues, showed that two months of aerobic training can significantly increase maximum oxygen uptake in a new exerciser. When the aerobic group entered a two month period of no training, they reverted back to their pre-training level. In a study performed by Faigenbaum and colleagues, they discovered that individuals who performed muscle strength exercises for two months increased their strength significantly as well. However, unlike the aerobic training research, the resistance training group retained 50 percent of their strength gains after two months of no training (detraining phase). In conclusion, during a period of no training, the loss in strength declines at a slower rate than aerobic conditioning. These finds are positive as one should not be discouraged if training cannot take place for several weeks due to an injury or illness.

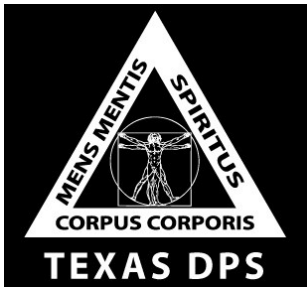
September 21, 2018

### **Inflammation 101**

There has been a great deal of discussion on inflammation in recent months, which in turn has led to some confusion regarding the causes and contributors to the inflammatory process. In general, inflammation happens when your body's immune system reacts to something abnormal. Acute inflammation, which happens after an injury or infection, is an orderly, healthy process. Your immune system mobilizes specialized cells to destroy foreign invaders and clean up damaged tissue, then quiets back down. Chronic, or systemic, inflammation is an unhealthy, chaotic process. It happens when your immune system is persistently on high alert and ends up damaging your body. Instigators include an unhealthy diet, lack of physical activity, unmanaged stress and lack of sleep, along with environmental pollutants. Chronic inflammation contributes to long-term diseases including: cardiovascular disease, type 2 diabetes and cancer. Diet and lifestyle modifications are the best way to prevent or reduce chronic inflammation. Research has shown that eating a diet rich in anti-inflammatory foods can lower the risk of chronic disease, promote gut and brain health, and slow skin aging. Below are a few anti-inflammatory foods to eat more of:

- 1) Avocados, nuts and seeds, olive oil, and fatty fish as these are a source of healthy fats
- 2) Non-starchy vegetables and fruit as these are sources for fiber, antioxidants and phytonutrients
- 3) Beans and lentils as these are sources for fiber and nutrients





September 28, 2018

### **Facts on Fat (Part 1 of 4)**

Low fat, no fat, high fat...just how much fat does a human really need? There are so many diets out there, and they all say something different. First, it is important to note that fat is not bad for us as we need fat to survive. There are no bad fats in nature, but we can damage our bodies with too much of the wrong types of fat. Plant and animal foods both contain dietary fats. These fats supply our body with calories (energy) and help with the absorption of the fat-soluble vitamins, such as vitamins A, D, E, and K. Fat is necessary to insulate the body, protect vital organs, form hormones, and help with inflammation. About 20-35% of daily calories should come from healthy fat (2010 Dietary Guidelines). For a 2,000 calorie diet, this translates to approximately 400-700 calories a day of fat. What does this look like? Each tablespoon of oil (dressing) or butter is approximately 100 calories of fat. 6 oz. of meat may contain anywhere from 144 calories (lean) to 300 calories from fat.  $\frac{1}{4}$  cup of cheese is approximately 100 calories from fat.  $\frac{1}{2}$  of an avocado is approximately 150 calories from fat. Next week, we will discuss healthy fats and learn why they are considered healthy.

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