Fatigue, What Do the Experts Say?

Fatigue affects us in various ways. One example we can look to is exercise. If you've ever worked out with weights, you've experienced muscle fatigue. By the end of your third set of bicep curls, the energy stores in the bicep have been depleted and the muscle becomes unable to exert the force necessary to lift the weight again. The principle of overcompensation, used in bodybuilding, tells us that we can force muscle growth by creating muscle fatigue, then restoring the nutrients and rest needed for the muscle to heal so that it grows larger and stronger. Bodybuilders have learned to use muscle fatigue in a way that ultimately results in muscle gain and gives them improved performance.

Unlike muscle tissue, our brain is a highly complex organ. The brain experiences mental fatigue, which is very different from physical fatigue. Mental and physical fatigue are separate biological functions. Mental fatigue can result in impaired judgment, reaction time and situation awareness. Physical fatigue has little effect on mental fatigue, but the reverse is quite different. Our psychological well-being can have a big impact on our physical health. A well-rested person who is managing stress in healthful ways, has a good chance of enjoying physical health.

Quality sleep is our only compensation for mental fatigue. Those who routinely get less than 7-9 hours of sleep will have a high homeostatic drive for sleep as the body struggles to restore balance. A sleep debt can only be paid with sleep. Sleep affects almost every type of tissue in the body, the brain, heart, lungs and immune system. Sleep is important to proper brain function, including how nerve cells communicate with each other. When a consistent lack of sleep exists, toxins build, and a concentration of harmful plaques can develop in the brain. This may lead to a higher risk of cognitive impairment or even the development of Alzheimer's disease.

Our brains don't have a lymphatic system, like the rest of the body has, for cleansing plaque and other waste from cells. It has a separate system, called the glymphatic system. This system uses cerebrospinal fluid (CSF) for cleansing. It's a clear fluid that bathes and cushions the brain and spinal cord. It is continuously produced and reabsorbed. When your brain is busy working and supporting normal function, it doesn't clear waste and toxins. During sleep, the space surrounding brain cells increases and allows CSF to flush out the toxins that build during waking hours. Your brain literally gets a bath while you sleep.

The experts have convinced us that a proper night's sleep is imperative to our mental and physical health. They also have some suggestions for getting that much needed sleep, including, creating a bedtime ritual with soothing activities like a warm shower and a good book, turning off electronics at least an hour before bedtime and avoiding heavy meals and caffeinated beverages too close to settling in for sleep.

If you still have problems getting the sleep you need, the best advice is to seek help from a sleep expert near you.