

Changing a person's aesthetics is achieved through the manipulation of diet, exercise and supplementation of nutrients. The one overlooked point, which most consider secondary to the aforementioned, is that of sleep. Sleep is not only vital for our sanity, but also that of our body composition.

There are five stages of sleep the brain goes through. During each phase biochemistry is altered within the body to promote memory retention to increase hormonal production. The first two phases of sleep are the transition period from a state of being awake to that of reduced body temperature and slower brain waves, while phase two sleep is also linked to that of phase five, during which the regulation of new movement patterns are laid down and established.

The third and fourth state of sleep is that of hormonal production and receptor sensitivity regulators – this phase of sleep is known as deep wave sleep. The final phase is that of REM sleep: this phase is responsible for establishing motor unit function and memory retention.

So how does this all relate to body composition and performance in the gym? Transforming one's physique is a specialty of ours at Fe Fitness, and one of the reasons we are so good at what we do is our understanding of manipulating sleep to do what we want it to. Let's take a look at how the different phases of sleep are linked to positive body composition changes.

Phase two and five sleep are vital in setting one's motor unit control: in weight training knowing how to perform the biomechanical movement patterns correctly is the difference between correct load dispersion and reduced injury occurrence. Therefore, in establishing phase two and five sleep stages we can better re-teach our clients how to perform the exercise whilst they are sleeping. By decreasing body temperature and regulating room temperature, one can create an environment that will sustain REM sleep. REM sleep can however easily be affected by noise pollution and light interference.

Light interference can easily create a sensory marker in the brain that disturbs REM sleep, therefore it is vital to establish the best sleep environment. Black-out curtains can be used and any light disturbances (electrical devices stand-by lights) should be eliminated. Even the slightest light contact with the skin will reduce the quality of REM sleep, so the darker the bedroom the more likely one is able to gain quality REM sleep.

Phase three and four sleep is critical is composition change because during these phases the human body resets insulin sensitivity and promotes growth hormone production: if one awakes between 1am and 3am in the morning after falling asleep at 10pm this phase of sleep is disturbed. The liver is responsible for much of the hormonal balance, so if the liver is unable to fully process toxins this balance is disturbed and the effect will be a lack of urinary control and a need to use the bathroom half way through one's sleep cycle. The problem with disturbing deep wave sleep is that in this phase the switch is reset to prevent the onset of diabetes or cancer growth, so not only is it vital for composition change but that of quality of life as well.

Magnesium is vital in aiding cortisol management and is therefore going to aid deep wave sleep in resetting insulin sensitivity. Magnesium is also a catalyst in re-establishing adrenal health through the cortisol/insulin connection. Californian poppy extract is a great herbal adaptogen that relaxes brain waves into deep wave sleep. It also acts as a liver detoxifier and has a secondary pathway in slowly aiding the removal of toxins that affect one's sleep cycle.

If your sleep cycle is predominantly affected during deep wave sleep try the following liver detoxifying protocol (this information is for educational purpose only: any participation of the following programme is not endorsed or encouraged through Fe Fitness nor Justin Maguire).

1. Increase your intake of fibrous vegetables and fruits.
2. Es by ATP supplements contains supplements that not only increase estrogen metabolism but also those that balance detoxification load on the bodily systems., thus promoting better health and not impacting cortisol by way of excessive toxin metabolism.
3. As an ongoing liver support formula I recommend making the following daily smoothie to aid hepatic function and lower acidity: 1 cup broccoli, 1 cup blueberries, ½ avocado, ¼ cup beetroot, 500ml coconut water all mixed to make approx. 2litres of healthy detox smoothie to be drank throughout the day.

Types of food will also affect one's sleep cycle. Foods that are high in carbohydrates may increase serotonin production, however, the downside is that once blood sugar levels decline the body will go into a natural hunger mode and you are likely to wake up as natural reaction to low blood sugar. Foods that are high in essential fats will aid in establishing a constant blood glucose level, which is beneficial as the body will be able to go into a fasting state while slow-release energy is being made available for metabolic function. Therefore, stay away from carbohydrate-rich meals at least two hours before bed and try to rather include a meal rich in essential fatty acids.

Once sleep has been perfected, all other hormonal regulations will fall into place. The effect of sleep on overall performance is pronounced. so the most critical part of any training programme is to establish a correct sleep cycle. Through better sleep comes a better body and a better mind.

Forge Your Status.