Sleep, Thinking, Memory and Health Quality

Sleep, thinking and memory are connected. To pay attention we need to be alert and this requires having had adequate sleep. It is impossible to process fully what we have not attended to. This can influence the speed and quality of the way we process information. Most of us have had the experience of the mind wandering off and not really hearing or seeing what has happened around us. Often this causes a catching up effect as we use sensory clues to pick up what we missed without seeming rude or inattentive. Researchers have done experiments to see if not getting enough sleep affects our thinking skills and they found that it does. Research studies are now finding that we not only consolidate what we learn during sleep but also that we can learn if we are cued while we are sleeping!

For individual's that can not sleep this process is complicated because the brain can go into a state where sleep does not seem needed and because without sleep we do less things well we are triggered into staying awake longer to make up the time we miss. Although this is a short term solution, over time this can be damaging. The kind of sleep waves we get affects the quality of our sleep, this is why many of us do not feel as refreshed or clear headed after we have taken a sleeping aid. The short slide show below by Dr.Sfera explains why we feel this way and what is going on in our brains.

Disorders of sleep and wakefulness from Adonis Sfera, MD

Your brain needs attention to consolidate memories. If you go to sleep and your thoughts are unhappy you may be handicapped by feeling too tired to solve the days events. It can be good to spend a little time before bed doing some mindful
meditation, cuddle with a loved one or interact with your pet. Exercise during the day helps as does cutting back on caffeine and stress. Making good sleep a priority is part of living in good health. Now for the challenge! The video below will show how people are using sleep as a time to strengthen learning. Perhaps those words from our parents “maybe you need to sleep on it” have a basis in science. We are just coming to a time when these patterns can be measured in the brain. If we got together a large group of people who wanted to see if good sleep helps them learn we could all help science. ThinkWell is all about finding things we can do to learn about science and promote wellness. Sleeping is something we could all do for ourselves as a group and share the data! I think most of us don’t get enough sleep all the time. Wouldn’t it be great if we could increase sleep quality with interventions that are safe, effective and that we could do on our own?

For an excellent article on sleep, vacations and research done with real people check out this article relax, you’ll be more productive in the New York Times by Tony Schwartz. Here is a taster “Although many of us can’t increase the working hours in the day, we can measurably increase our energy. Science supplies a useful way to understand the forces at play here. Physicists understand energy as the capacity to do work. Like time, energy is finite; but unlike time, it is renewable.”

References