

The Six (6) Pillars of Good Mental Health (Part 2)

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There are some basic supports that need to be in place for all of us to achieve maximum brain health (good mental health) regardless of age, gender, health or mental illness. These are the six (6) pillars of brain health: sleep, water, exercise, nutrition, humor, and laughter and social connections.

Water, the second pillar of good mental health, is our body's most important nutrient. It is involved in every bodily function, and makes up 70 to 75% of our total body weight. Water helps us to maintain body temperature, metabolize body fat, aids in digestion, lubricates and cushions organs, transports nutrients, and flushes toxins from our body.

Everyone should drink at least 64 ounces of water per day and more when exercising or if you are overweight. Our blood is approximately 90% water and it is responsible for transporting all nutrients and energy to muscles and for taking waste from tissues.

What do you do when you feel "brain-sluggish?" Most of us will reach for food (fuel) thinking it will replenish our energy level. Too often our struggling brain is simply dehydrated and craving water. Our brains are over 60% water and not drinking enough water daily can have some serious effects on our brains. When our body does not have sufficient water, our brain cells and other neurons shrink and the biochemical processes involved in our brain's cellular communication slow down. Slower processing speeds can result in impaired short-term memory, fuzzy visual tracking and deficits in attention. Our brain is the highest-maintenance organ in our body; it controls all our physiological functions.

Dehydration is the number one cause of memory lost at any age and is the number one diagnosis in this country. The water levels in our body are dynamic and always changing; we lose water through breathing, sweating, urinating and bowel movements. Dehydration occurs in stages in our body. The first stage occurs in our blood vessels – water is shifted from cells to meet the needs of our blood vessels. Further water loss may cause dry mouth, reduction of tears; continued water loss may reduce or terminate sweat production; and eventually water loss may cause muscle cramps, lightheadedness, nausea, and heart palpitations.

Drinking enough water daily is essential to maintaining optimal health. When brain cells are plump and pliable our nerve connections are fast and streamlined. Water also cushions all our organs but particularly our brain from severe impact or injury. Drinking enough water will have significant impact on both the length and quality of our life.

Exercise, the third pillar of good mental health, should be a natural part of life. It wasn't too long ago that exercise was part of our survival – hunting, gathering or raising livestock and growing foods; walking, now considered an exercise, was just a form of transportation. Today, over fifty percent of young people, ages 12 to 21, get no rigorous exercise on a regular basis; only one in four reports getting 30 minutes of physical activity daily; more than 75% of us do not exercise daily.

Exercise exerts its effects on the brain through three primary mechanisms; neuro-genesis, mood enhancement, and endorphin release. Neuro-genesis is the creation of new neurons in the hippocampus, the center of learning and memory, in the brain. The mild "good" stress generated by exercise appears to initiate new brain cell growth. Physical

activity enhances our mood by releasing neuro-transmitters such as serotonin. Endorphins are also released which can assist in blocking pain.

Exercise increase our energy, improves our self esteem, enhances a sense of mastery and control over our lives, provides distraction and relief from worries, rids our body of toxic stressors, strengthens our physical health and improves our sleep – all good for the brain!

Physical exercise has protective effect on the brain and its mental processes; some research even suggests it may help to prevent Alzheimer's disease. Men and women over 65 who exercise regularly are less likely to lose the mental abilities or develop dementia. An improvement of only 5-7% in cardio-respiratory fitness can strengthen, by more than 15%, two cognitive areas of the brain, the hippocampus, the learning and memory center, and the basal ganglia which coordinate commands to move muscles. Healthy blood flow and increased oxygen to the brain are also critical components to brain health.

The information provided here comes from the series of 6 brochures developed by Janet Frick and the MHA last year. References for this information are included in the brochures which are available at the MHA Office. My next column will be Part 3 of this series.

Have a healthy day – exercise your mind, body and spirit.

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