

Module 3, Lesson 1 Handout:

The Pillars of a Nutritious Life for Brain Health

It's no secret, cognitive decline happens to all of us as we age. But, there are things we can do to slow this decline down and to improve brain health and cognitive function. It's only fitting to explain these approaches using some of the pillars of a Nutritious Life.

Sweat Often. Exercise has been proven to not only slow cognitive decline, but improve cognitive functioning. Exercise stimulates blood to the brain and is proven as being beneficial in people with Alzheimer's disease and dementia. The research is really fascinating. In one study, elderly exercisers and non exercisers played memory based video games and their brain activity was tracked. The exercisers showed more brain activity and non exercisers showed that they can increase their brain memory and functioning with even small amounts of physical fitness improvements. Another study showed exercise improved executive function in just over 6 months - a short time to invest in such a big payoff.

Eat Empowered. The research is clear that what we eat can have a huge impact on brain health. There's solid evidence that following the MIND diet, which combines aspects of both the DASH diet and the Mediterranean diet, can promote brain health, lower risk of Alzheimer's disease and slow cognitive decline related to age. One study found that participants with the greatest adherence to the MIND diet saw improvements to their brains that were equivalent to being 7.5 years younger compared with people who didn't follow the diet. The MIND diet promotes eating leafy green and other vegetables, nuts, berries, beans, whole grains, fish, poultry, olive oil and red wine while limiting intake of red meat, butter, cheese, desserts and fried foods - essentially, an overall healthy diet. A few specific foods have been found particularly beneficial for the brain. Several studies have looked at how blueberries and other berries can reverse age related memory decline, likely thanks to their phytochemical content. Research suggests beets may increase blood flow to the brain, omega-3 fatty acids from fish have been linked to greater intelligence and brain function and diets high in all fruits and vegetables are associated with a lower risk of dementia and slower rates of cognitive decline in older age. Work with clients to shift their habits to include more of these brain friendly foods and less of the foods that may be contributing to risk of brain disease.

Sleep Deep. This cannot be emphasized enough when it comes to brain health. When you are in shut eye mode, your body is doing so much brain, memory, cognition and mental functioning work. The studies here are strong. More and better sleep is directly linked to better memory performance. Some studies say that repairing poor sleep from sleep apnea or insomnia improves cognitive

functioning and other studies conclude that slow wave sleep (SWS) equates to less cognitive decline. SWS is thought, by some investigators, to play an important role in cerebral restoration and recovery in humans. More research needs to be done, but we know that there are many additional benefits to quality sleep including helping maintain weight. It's important to stress the importance of sleep for all of your clients, but especially when people report feeling "foggy." Go back to all you have learned on good sleep hygiene.

Love More. Socializing is important. Human interactions strengthen neural ties and improve both memory and cognition. We know people who are socially isolated are more prone to depression and an accelerated cognitive decline. Also, people who are mentally stimulated - who use their brains reading, writing, doing crossword puzzles, playing board or card games, engaging in group discussions and playing music - have richer cognitive functioning than couch potatoes, so engaging in these types of activities are essential to good brain health. Ten minutes of sudoku, peeps. Incorporate this into lifestyle plans you create for your clients where appropriate.

Stress Less. Reducing stress is important for a variety of reasons, including brain health. Stress messes with learning and memory so make sure to help your clients amp up on that pillar for brain strength. In one study, cortisol levels were measured in 2,000 normal, healthy subjects who showed no signs of dementia. The subjects with the highest cortisol and the most stress had poorer cognitive functioning when tested; the association was found in both men and women.

Live Consciously. This pillar is all about being more aware of how your choices affect the world around you and the outside environment may be connected to brain health. Research suggests that exposure to pollution and toxins can negatively impact the health of your brain. One study found children who live in severely polluted areas performed more poorly across a variety of cognitive tests, had less white matter volumes and demonstrated cognitive deficits compared with children in less polluted areas. Other evidence suggests outdoor air pollution may have a significant impact on the central nervous system and inhaling air pollutants may be detrimental to our brains. Work with clients to reduce toxins and pollutants in their personal lives, which will ultimately contribute to the greater picture of global pollution.

Drink Up. Hydration is key for a healthy brain. A review that looked at the effects of hydration status on cognitive performance and mood found that these factors are linked. Several studies have found that dehydration can impair cognitive abilities such as short-term memory, psychomotor function and sustained attention. Other studies have consistently found associations between dehydration and mood. On the flip side, we know alcohol can impair brain function. Research finds excessive alcohol use as a major cause of dementia. An estimated 10% of early onset dementia cases

are likely due to alcohol related brain damage and potentially 10-24% of dementia cases in nursing homes can be tied to alcohol use. As for caffeine, lifelong coffee or tea caffeine consumption can actually have benefits and has been associated with reduced risk of stroke, Parkinson's disease and Alzheimer's disease and prevention of cognitive decline. Work with clients to fit in more water, cut back on alcohol and find a caffeine habit that works for them.

Nurture Yourself. Self care is essential for overall health and your brain sees these benefits. Research has found aromatherapy and massage support the autonomic nervous system. Aromatherapy has even been used as a complementary therapy in people with dementia. Spending time in nature can have big benefits too. One study found taking an hour walk through the countryside can boost cognitive recall by nearly 20%. Don't discount the power of a little self care time for your brain.