

Maintain Your Brain, PROLONG YOUR SERVICE

As we take steps to maintain our mental abilities, we can prolong our capacity to actively serve others.

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An increasingly common health challenge, inhibiting the service of many senior members in the Church, is cognitive or memory decline. Ailments like Alzheimer's disease seem to be sweeping the world like a plague. In later stages, this decline is referred to as dementia—a debilitating reduction in two or more mental abilities, such as memory and judgment.

Unlike many ailments, no drugs have been found to reverse this decline. Perhaps that is because, as we now know, cognitive decline has more than 60 potential contributors, including poor circulation, high blood pressure, high blood sugar, prolonged stress, lack of sleep, and hormonal decline. Increased toxins in our air and diet have also greatly heightened this risk.

The good news, however, is that such losses are not inevitable, even for those with a genetic predisposition. You may have heard that nothing can prevent or mitigate Alzheimer's or other forms of cognitive decline, but we now know that is not true. Recent studies show that the preservation of our mental abilities is more within our control than previously thought.

Latter-day Saints know that blessings are predicated on obedience to laws. As President Russell M. Nelson has observed, "Whenever a blessing is received, it's because a law has been obeyed."¹





The following scriptural accounts provide helpful insights into the laws governing physical and mental health and what we can do to ward off this plague.

Healthful Diet

Our Creator obviously knows, and anciently gave counsel based on, the laws governing human health. For example, when Daniel was chosen to serve in the court of King Nebuchadnezzar, he and his companions knew what they should and should not eat and drink to keep their bodies and minds healthy. So they declined the king's wine and rich diet in favor of a diet of "pulse" (primarily vegetables) and water. As a result, the king found "in all matters of wisdom and understanding," Daniel and his companions were "ten times better" than his other advisers. (See Daniel 1:3–20.)

Soon after the Lord restored His Church, He renewed his warnings and counsel on diet (see Doctrine and Covenants 89). And numerous studies since have confirmed the wisdom of that counsel.²

Physical and Mental Activity

Throughout history, from Adam to Moroni and from Joseph Smith to President Nelson, the prophets and people of God have been physically active. Initially it was required in order to eat (see Genesis 3:19). Obviously, Heavenly Father knew that physical activity would be important for our bodies and brains. However, in our day most jobs and meals don't require much physical exertion.

Nevertheless, physical activity remains essential for optimal physical and mental health. It facilitates

digestion and the circulation of nutrients to the brain. It helps control blood sugar, blood pressure, stress, and inflammation in the body, which can damage the brain. It also improves sleep and boosts hormones and energy for thinking and remembering. Moreover, we

now know that physical activity and some foods can increase growth factors in the brain that facilitate the creation of new connections and memories.³

The Lord has also admonished the Saints to “seek learning, even by study and also by faith” (Doctrine and Covenants 88:118; 109:7, 14). The brain is a use-it-or-lose-it organ. If we want it and our memories to stay sharp and clear, we must stay engaged in learning and sharing new things throughout the duration of our mortal life. President Nelson is an excellent example of that as well!

Social Interaction

The Lord commands His Saints to meet together often and to look out for one another within their families, wards, and elsewhere (see Moroni 6:5; Doctrine and Covenants 20:55). Such social interaction, including one-on-one ministering and service, is one of the best ways to keep our minds active and healthy as we advance in years. Those who do not have much social interaction in their later years tend to have a harder time maintaining their mental faculties.

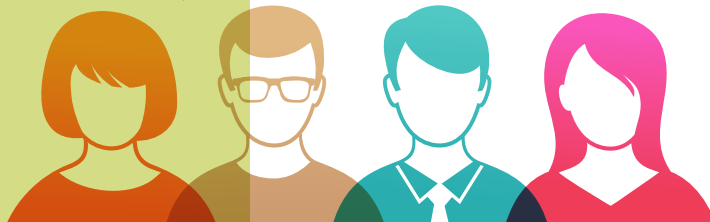
Study Results

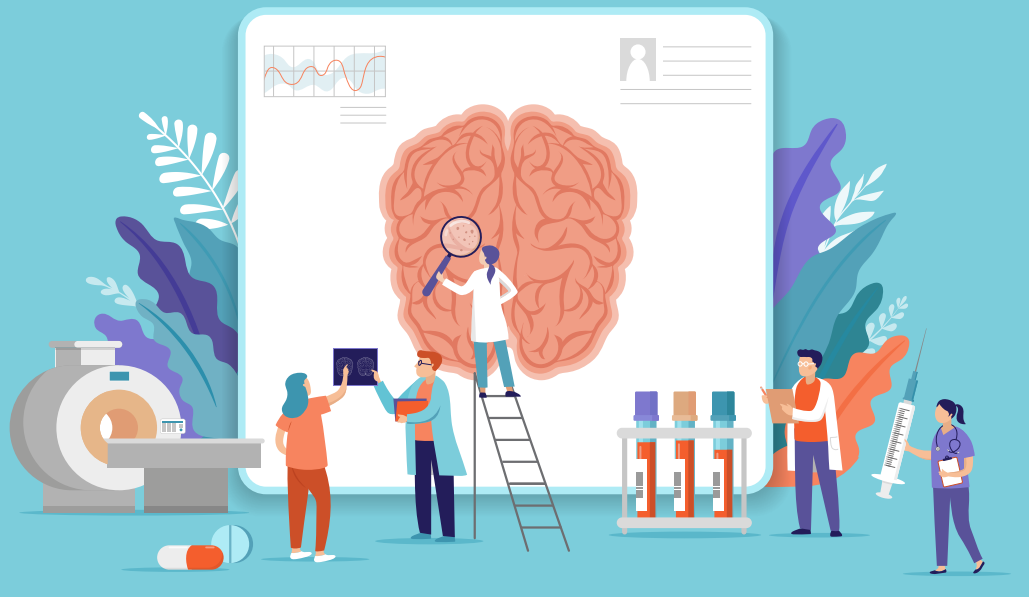
While no single revelation emphasizes the importance of all of these activities for brain health, Heavenly Father appears to have inspired a variety of researchers in recent years to validate the importance of the above noted counsel for promoting and prolonging healthy brain function. Here are a few examples.

- In 2014 the “Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability”—commonly referred to as the FINGER study—was presented at an international conference on Alzheimer’s. This study of more than 1,200 seniors with significant cognitive impairments found that those who maintained a healthier diet and lifestyle—that is, stayed physically, mentally and socially active—were on average able to think faster, reason and remember better, and dramatically reduce their risk for dementia.⁴
- In July 2019, a similar study conducted in the Chicago, Illinois, area found that a healthful diet, physical and mental activity, drinking less alcohol, and not smoking “reduced risk of Alzheimer’s dementia by 60%” compared to adopting none or only one of those protective factors.⁵ Most active Latter-day Saints embrace these practices, but periodically we may want to ask ourselves: How healthful is my diet? Am I getting enough physical and mental activity?
- During this same period, a Loma Linda Medical Center study in California found, after reviewing more than 300 related studies, that more than 80 percent of Alzheimer’s cases could probably be avoided by adhering to a variety of healthful dietary and lifestyle principles and practices.⁶

A Personalized Approach

Those already experiencing cognitive difficulties, and their families, should be encouraged by another study conducted by Dr. Dale Bredeesen, a neurologist and researcher from the University of





California at Los Angeles. In his personalized study of 10 individuals in the early to mid-stages of Alzheimer's, he found that the following interventions resulted in a reversal of symptoms in 9 out of 10 patients:

- Addressing individual nutritional needs.
- Avoiding harmful food additives and environmental toxins.
- Engaging in physical, mental, and social activities.
- Meditating and praying.
- Controlling blood sugar and blood pressure.
- Getting a good night's sleep.
- Optimizing blood flow and hormone levels.
- Addressing other related health issues.⁷

A later study using this same approach showed improvements in more than 100 individuals in various stages of cognitive decline.⁸ Physicians and others trained in these interventions are now achieving similar results in clinics throughout the world. It's abundantly clear, however, that the earlier cognitive difficulties are addressed, the easier they are to arrest.

As Maria C. Carrillo, chief science officer for the Alzheimer's Association, has said, "A large body of research now strongly suggests that combining healthy habits promotes good brain health and reduces your risk of cognitive decline."⁹

In this day of increasing cognitive peril, we are blessed to be led by President Nelson, who will turn 96 years old next month and who has learned and applied the principles of good health. May we follow his remarkable example so that we too may prolong our service in the Lord's kingdom in these latter days. ■

NOTES

1. In Lane Johnson, "Russell M. Nelson: A Study in Obedience," *Ensign*, Aug. 1982, 20.
2. To learn more about what constitutes a brain-healthy diet and lifestyle, see the American Brain Council Foundation, ABCBrain.org; apollohealthco.com; Alzheimer's Foundation of America, alzfdn.org.
3. See Tiia Ngandu and others, "A 2-Year Multidomain Intervention of Diet, Exercise, Cognitive Training, and Vascular Risk Monitoring versus Control to Prevent Cognitive Decline in At-Risk Elderly People (FINGER): A Randomised Controlled Trial," *Lancet*, vol. 385, no. 9984 (June 6, 2015), 2255–63; see also Miia Kivipelto and others, "The Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability (FINGER): Study Design and Progress," *Alzheimer's and Dementia*, vol. 9, no. 6 (Nov. 2013), 657–65.
4. See Tiia Ngandu and others, "A 2-year Multidomain Intervention," 2255–63; see also Miia Kivipelto and others, "The Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability," 657–65.
5. See "Lifestyle Interventions Provide Maximum Memory Benefit When Combined, May Offset Elevated Alzheimer's Risk Due to Genetics, Pollution," Alzheimer's Association, alz.org.
6. See Blue Zones interview with Drs. Ayesha Sherzai and Dean Sherzai, "Researchers Say Most Alzheimer's Disease Cases Are Preventable—Find Out How," bluezones.com/2017/09/researchers-say-alzheimers-disease-cases-preventable-find; see also Dean and Ayesha Sherzai, *The Alzheimer's Solution* (2017).
7. See Dale E. Bredesen, "Reversal of Cognitive Decline: A Novel Therapeutic Program," *Aging*, Sept. 2014, aging-us.com.
8. See Dale E. Bredesen and others, "Reversal of Cognitive Decline: 100 Patients," *Journal of Alzheimer's Disease and Parkinsonism*, vol. 8, no. 5 (2018), omiconline.org.
9. Maria C. Carrillo, in "Lifestyle Interventions Provide Maximum Memory Benefit When Combined," Alzheimer's Association, alz.org.