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Risk Factors and Biomarkers for Dementia

Almost 15% of Canadians over 65 years of age have some form of cognitive impairment, including dementia, according to the Alzheimer Society of Canada – that's about 747,000 people.

Diet, Obesity and Dementia

The thought of developing dementia is frightening – especially since treatment options are few – so it can be reassuring to take steps in lifestyle choices that reduce the risk. A Finnish study has found that consuming a healthy diet in midlife (cited as an average age of 50) can help stave-off dementia down the road, by as much as 90%! In particular, saturated fats were associated with high risk but, thankfully, 3-5 cups of coffee per day reduced the risk of dementia!

Perhaps also related to diet, a retrospective review of over 450,000 people in England found a relationship between obesity at midlife and about a 70% increased risk of dementia. Such a review is not able to state that being obese actually causes dementia but identifies it as a subject for research. It may be that some of the other effects of obesity (such as on the circulatory system) are contributing to the development of dementia.

Potential Biomarkers for Alzheimer's Risk

Researchers have stumbled across an interesting finding: Alzheimer's sufferers tend to have an elevated level of a chemical, called orexin, in their cerebrospinal fluid. Orexin is a neurotransmitter that plays a key role in the sleep/wake cycle, with higher levels being associated with poor sleep (which has already been associated with Alzheimer's). Researchers haven't said this is a cause-effect relationship but it may prove useful as a biomarker for Alzheimer risk.

Because humans can be very good at compensating for cognitive decline, identifying a biomarker that can predict dementia or Alzheimer's becomes very important. A study out of Italy has found that older adults with a low level of vitamin D in their blood were at a greater risk of cognitive decline in the subsequent 4 years. This has prompted calls to study whether vitamin D supplementation can delay or prevent dementia – a potential cost-effective strategy!

Vitamin D has had its share of good press in recent years, but many of the claims still require research to prove effectiveness and safety. In the meantime, talk to your pharmacist about current vitamin D recommendations.