Impact of vitamins & nutrients on neurological function

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Schedule of topics:

**Week 1: Introduction to the brain**
The focus of the lecture will be an introduction to the brain. At the end of the lecture participants will be able to identify different structures within the brain as well as function. This lecture will be essential for understanding the materials covered in the rest of the course.

**Week 2: B-vitamins and development**
This lecture will cover the different B-vitamins (e.g. folic acid, vitamin B12) as well as their metabolism. After which, the role of b-vitamins in brain early development will be covered. Using short films clips students will be able to see the impact of B-vitamins on neurodevelopment.

**Week 3: B-vitamins and aging**
This lecture will focus describing how B-vitamins affect diseases of aging and stroke and can be used as treatment for diseases. Using short films clips students will be able to see the impact of treatment with these vitamins on disease.

**Week 4: Choline**
This lecture will extensively describe the role of choline during development and pregnancy as well as using choline as a treatment for age related cognitive decline. Using short films clips students will be able to see the impact of choline deficiency and supplementation on neurological diseases.

**Week 5: Vitamin E and D**
The metabolism of Vitamin E and D as well as their role in normal and disease neurological function will be covered. Furthermore, changes in DNA and deficiencies in Vitamin E have been associated with onset and progression of neurodegenerative diseases, these studies will be discussed.

**Week 6: Effect of over supplementation of vitamins and nutrients**
There has been a steady increase in the amount vitamin and nutrient supplementation because of public health campaigns as well as other factors. This lecture will discuss the effects of over supplementation on neurological function. Other ideas, topics, and list of resources will be provided for future learning.

**Recommended readings for continued learning:**
none