Welcome to
Age-Friendly Whalley Range & Chorlton

Would you like to find out about local activities and services for older people?

Tea and Talk
February 21, 2019
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• Worldwide, over 50 million dementia cases
• nearly 10 million new cases diagnosed a year
• worldwide costs of dementia $818 billion in 2017
• A trillion-dollar disease by 2018—equivalent to world's 18th largest economy (the Netherlands)
No health without brain health

- Brain health is key to total health—and quality of life
- But neuro-degenerative diseases remain on the rise
- So, how do we keep our brain happy and healthy?
Risk factors

Age
Ethnicity
Genetics
Down’s syndrome

Alcohol
Artery damage
High blood sugar
Insulin resistance
High blood pressure

Diabetes
Depression
Obesity
Lack of exercise
Poor sleep
Smoking
Lifestyle and diet

Artery damage

• Smoking
• High blood pressure
• Diabetes/high or unstable blood sugar/insulin resistance
• Depression
• Obesity
• Poor sleep
• Inactivity
Impact of food on blood sugar

The graph shows the relationship between carbohydrates and glucose score for various foods. The x-axis represents carbohydrates (g), and the y-axis represents glucose score (%). The arrow points to a general trend where foods with higher carbohydrate content tend to have a higher glucose score, indicating a potential impact on blood sugar levels. Some specific foods are highlighted, including examples of high and low carbohydrates and glucose scores.
A little bit of brain history

- About 2.5 to 3 million years ago there was a sudden jump in brain size in our ancestors
- linked to use of stone tools to scavenge meat left by predators
- became predators and obtained even more nutritious food by hunting - organ meats and bone marrow - which enabled us to evolve into homo sapiens
- all evolutionary steps linked to food technology
A University of Michigan-led study shows that bone marrow
• helps maintain insulin sensitivity
• helps break down fat
• Is linked to decreased risk of heart disease, diabetes, and obesity-associated cancers.

Cell Metabolism U of M Health
Brain-protective nutrients

The B vitamins are co-factors in every pathway related to dementia or Alzheimer’s disease.

Vitamin D important for every function in the body not just brain.

Dementia patients tend to have very low vitamin D levels.

Sunshine is key.
Supplementation can help.

Vitamin E
• reduces oxidative stress
• inhibits toxic effect of vegetable oils
• reduces lesion in brain matter, a strong risk factor for cognitive decline.
Brain-protective nutrients

**Magnesium and Iron**
Alzheimer’s patients tend to have lower magnesium and iron levels and higher oxidative stress loads (from processed carbohydrates)

**Zinc**
Regulates absorption of copper and prevents overloading, which can inhibit cognitive function (thinking)

**Lutein and Zeaxanthin**
For eye health and cognitive function. Supplementation can slow cognitive decline. Even young healthy adults see improvements to memory with supplements, if their baseline levels are low

**Creatine**
Creatine enhances physical performance but also important for cognitive function - recycles the fuel we use for energy

**Long Chain Omega-3 Fatty Acids**
Balanced omega-3/omega-6 ratios can prevent the “initiation and progression” of many neurological disorders by reducing inflammatory response
Best sources

**Red Meat**
Excellent for creatine, zinc, iron, and B vitamins. It’s even got a little-known nutrient called carnosine, which acts as a brain antioxidant.

**Extra Virgin Olive Oil**
Excellent for monounsaturated fat, which is critical for healthy cell membranes in the brain and other parts of the body. Spicy or peppery oil indicates the presence of beneficial nutrients, which can slow the onset of dementia and preserve brain clean up (autophagy).

**Avocados and Avocado Oil**
They’re rich in vitamin E, lutein and zeaxanthin.

**Leafy Greens**
magnesium and carotenoids like lutein and zeaxanthin.

**Pumpkin seeds**
Zinc for thinking and memory.
Best sources

**Chicken Hearts**
rich in every B-vitamin except for thiamin (still have thiamin, just not as dense as the other B-vitamins). Loaded with zinc and iron. Good source of cholesterol, which can help repair damaged brain junctions.

**Wild Sockeye Salmon (skin on)**
The intense red colour is astaxanthin, an “animal carotenoid”
Highly bioavailable vitamin D
Long chain omega-3 fatty acids.
Omega-3s and astaxanthin seem to increase the effect of the other.

**Free range outdoor eggs**
choline, folate and other brain-supportive micronutrients
long-chain omega-3 fatty acids in a form that can be absorbed directly by the brain
vitamin D in a form 5 times more bioavailable than vitamin D3.

**Blueberries**
Older adults with cognitive impairment improve cognition. Older adults without cognitive impairment improve brain activation. Look for blueberries that stain your mouth, an indication of high polyphenol content.

**Dark Chocolate**
Improves cognitive function in older people with and without cognitive decline.
Other helpful nutrients

- **caffeine** - long-term memory and inhibits cell death and ‘tangling’
- **coconut oil** - energy for the brain
- **turmeric** - protects against major neurological disorders (pair with black pepper and coconut oil)
- **Vitamin B12** - prevents brain shrinkage
What's the deal with Omega 3 and 6?

Science News

Healthy brain aging linked to omega-3 and omega-6 fatty acids in the blood

Date: May 18, 2017
Source: University of Illinois at Urbana-Champaign
Summary: Two new studies link patterns of polyunsaturated fatty acids in the blood to the integrity of brain structures and cognitive abilities that are known to decline early in aging. The studies add to the evidence that dietary intake of omega-3 and omega-6 fatty acids can promote healthy aging, the researchers said. Further research is needed to test this hypothesis, they said.
The lack of Omega 3 in our diet is going to change the human brain in a way that is as serious as climate change threatens to do.
Omega-3 and the brain

- Mood
- Stroke
- Eye health
- Normalises blood fats
- Dyslexia
- Blood thinning
- Anti-inflammatory
Ready-made sources of Omega-3

- Cod liver oil
- Wild salmon
- Sardines, mackerel, herring, pilchards, anchovies
- Free-range egg yolk
- Bluegreen algae
- Insects

Rule of thumb
At least two portions of oily fish a week
Foods we can make Omega-3 from

grass-fed meat

walnuts, flax and hemp

but conversion rates poor especially as we age
- Brain is made up of 1:1 ratio between Omega 3 and 6

- If we have too much Omega 6 in diet, it interferes with absorption of Omega 3

- Some people’s diets are as high as 20:1

- as well as brain damage, this increases risk of heart disease and cancer

- fast food
- processed food
- most vegetable oils
- meat from grain-fed animals
Industrial seed oils (also known as ‘vegetable’ oils)

Soybean oil
Canola oil
Corn oil
Cottonseed oil
Sunflower oil
Peanut oil
Sesame oil
Rice bran oil
Industrial seed oils (also known as ‘vegetable’ oils)
VEGETABLE OIL RELEASES TOXIC CHEMICALS CALLED ALDEHYDES WHICH CAUSES CANCER AND NEURODEGENERATIVE DISEASES

COMPLETEWELLNESSREPORT.COM
Healthy fats
The brain contains 25–30% of total body cholesterol.

- essential component of nervous system
- cholesterol is of great importance to brain’s ability to develop and function

High Low-Density Lipoprotein Cholesterol Inversely Relates to Dementia in Community-Dwelling Older Adults: The Shanghai Aging Study

Front. Neurol., 12 November 2018
https://doi.org/10.3389/fneur.2018.00952
The brain and cholesterol

Conclusion:
high level of LDL-C is inversely associated with dementia. High level of LDL-C may be considered as a potential protective factor against cognition decline.

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Environmental toxins implicated in Alzheimers

Toxic overload from environmental chemicals – plastic in food and drink containers (BPA) and till receipts
How sleep protects the brain

• waste-draining system 10 times more active during sleep than while awake.
• removes proteins called amyloid-beta, which accumulate into plaques that contribute to Alzheimer's and dementia.
• cerebrospinal fluid flows through the spaces between neurons, flushing proteins and other neural waste into the circulatory system and away.
Ideally between five and 10 hours a night
Lifetime physical activity and late-life cognitive function: The Rancho Bernardo study

Age and Aging | 09 January 2019

Reas ET, et al. - In this cross-sectional study, investigators assessed 1,826 community-dwelling men and women in southern California aged 60–99 years who attended a research visit in 1980–1992 to identify associations between physical activity throughout the lifespan and cognitive function in older age. They observed improved cognitive function in those who had partook in regular physical activity regardless of intensity. They also observed that physical activity in teenage years had a positive, protective benefit against age-related decline in executive function.

Methods

- The investigators recorded reports on the physical activity of study participants who underwent cognitive testing at an
Conclusion:
Regular physical activity protects against cognitive decline
Being active in teenage years
Starting being active in mid or later life
Both helpful
Take aways

- Eat real food
- Low carb/ketogenic can be helpful
- Stay active
- Keep connected – social interaction and connection vital
- Sleep
- Sunshine

- Avoid processed carbohydrates
- Limit or cut out sugar
- Avoid industrial seed oils
What’s good for our gut is good for our brain . . . and vice versa

Next Tea and Talk
GUT HEALTH
March 14, 2019