



doi:10.1136/pn-2024-004357

TOOTH LOSS AND MEMORY FLOSS

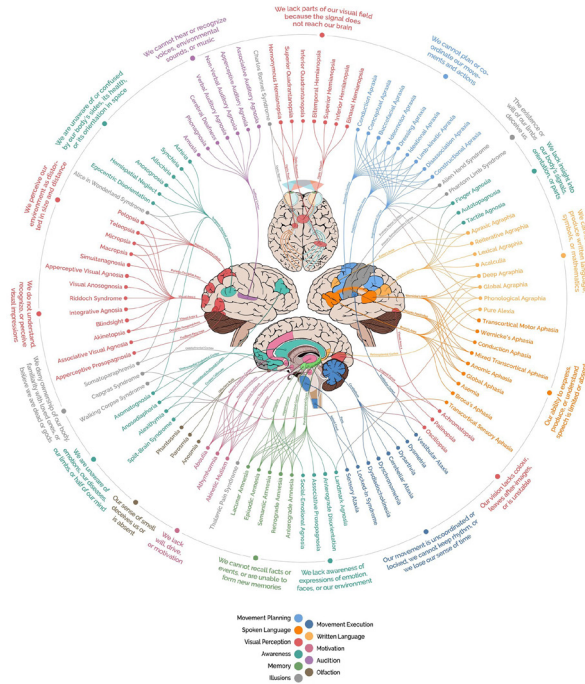
Toothless crones can go both ways in literature, as either wise or wizened. The Journal of Dental Research published a meta-analysis linking tooth loss to memory decline, sparking fresh interest in the mouth-brain connection. (Several cranial nerves probably explain some of this connection, thinks A Fo Ben). The researchers found that individuals with significant tooth loss had poorer memory and were more likely to experience cognitive decline compared to those with healthy dentition. This raises the fascinating question: could keeping your teeth in tip-top shape be a key to maintaining mental sharpness? Flossing might just be the new brain workout.

Front Neurol. 2023; 14: 1103052.

CP: CEREBRAL PALSY / CLINICAL PANEL

The orthodoxy is that cerebral palsy is caused by birth injury and so better maternal care can reduce prevalent rates of disability, and prevent epilepsy. This may be the case for some but not all people as a study of 505 girls and 1073 boys using simple exome sequencing identified a likely genetic cause in 387 (24.5%). The causes were in 219 different genes and 59 copy number variants. Interestingly the pick-up rate was *higher* in those with a story of birth asphyxia ($p=0.003$). Perhaps of greater interest is that 33 children (8.5%) had clinically actionable results, beyond screening of the wider family.

Nat Med. 2024; 30(5): 1395–1405.



COGNITIVE DISORDER ATLAS
Research & Layout: Lasse Damgaard | Algorithmic Design: Lasse Hansen | Poster: lassedamgaard.ncbi.nlm.nih.gov

The interconnectedness of everything. The figure maps the symptoms and neuroanatomical correlates that span a number of neurodegenerative disorders.

ATTACK OF THE MITOCHONDRIA

At some point in the horror franchise, script writers make the beast more terrifying; perhaps now the zombies can run, or the sharks are hyper-intelligent, or the Daleks can fly. Scientists now show that mitochondrial genes (that we thought were limited to a tiny maternally inherited ring) are being incorporated into the somatic chromosomes within our brains. Transfer of DNA from mitochondria to the human genome was considered a rare occurrence, but these insertions are now thought to be widespread and to occur more as we age. These nuclear-mitochondrial segments (NUMTs) are jumping across, like a virus. They studied 1187 brain bank specimens in older adults finding that most

people carry several NUMTs, mostly in the prefrontal cortex, and these were twice as prevalent than in circulating immune cells.

PLoS Biol. 2024; 22(8): e3002723.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Commissioned; internally peer reviewed.

Data availability statement No data are available.

© Author(s) (or their employer(s)) 2024. No commercial re-use. See rights and permissions. Published by BMJ.