

How to Have a Healthy Brain: The Best Diet at Every Stage of Life [C2]

Non è mai tardi per cominciare a scegliere un'alimentazione sana e calibrata: anche il cervello, come il resto del corpo, ne riceve grandi benefici. Questa è una breve guida sugli alimenti più preziosi in ogni fase della nostra vita, dalla gravidanza alla vecchiaia.



While the foundations of brain structure and function are **laid** during pregnancy and early life, the brain is constantly being **fuelled** and **shaped** by the food and drink we consume daily. We should be thinking of brain health like a pension plan; it is best to start as early as possible so that you have more to **draw** from when you need it. That said, it is never too late to invest in your brain health. Here is how to use nutrition to aid the brain at each stage of life.

Research shows a correlation between diet quality and size of the hippocampus (the brain's memory centre). So the greater the proportion of ultra-processed foods, the smaller this brain area.

PREGNANCY

Most people know that you need to take folic acid to support a healthy pregnancy, but there is another [lesser-known](#) nutrient that is critical to brain development. Iodine is a [trace mineral](#) that is essential for the production of thyroid hormones. We know that thyroid hormones play a role in metabolism but they also determine the growth and development of the fetal brain during pregnancy. Consequently, the World Health Organization describes iodine deficiency as “the single most important preventable cause of brain [damage](#)” worldwide. A [lack](#) of iodine [impairs](#) thyroid hormone production during pregnancy, meaning a baby’s brain development will be [unavoidably](#) affected, with studies [linking](#) low maternal iodine with sub-optimal scores for verbal [IQ](#) at age eight. Because adequate thyroid hormone is required from the moment of conception, women need to [ensure](#) sufficient iodine [intake](#) for several months before conceiving. This can typically be achieved by eating a balanced diet that includes a variety of [dairy](#), fish and [seafood](#). However, those who do not eat animal foods may need to consult a health professional about taking an iodine supplement. Too much can be a problem too, with an excess causing iodine poisoning or hyperthyroidism, so it is important to get the balance right. Good things to eat during pregnancy are: fish and cooked [seafood](#), preferably smaller species such sardines, salmon and [mussels](#); and eggs. [Seaweed](#) is also recommended as a concentrated [source](#) of iodine.

CHILDHOOD

The brain continues its rapid growth and development during [infancy](#) and childhood. Omega-3 [fatty acids](#), particularly one called [DHA](#), [make up](#) a significant proportion of the membrane of brain cells. [DHA](#) is considered irreplaceable for brain development and evidence shows it may be especially important to [ensure](#) that children are getting sufficient [amounts](#) through regularly eating oily fish. A recent [survey](#) found that less than five per cent of UK children are meeting the fish consumption recommendations. On the other hand, children in the UK are eating more than the recommended levels of [added](#) sugar. The UK government advises that free sugars — sugars [added](#) to food or drinks and found naturally in honey, syrups and

unsweetened fruit and vegetable juices, smoothies and purees — should not [make up](#) more than five per cent of the energy (or calories) you get from food and drink each day. Children are eating, on average, eight sugar cube equivalents over the advised limit, [largely](#) in the form of sugar-sweetened beverages, and prepackaged cakes and biscuits, often eating over 11g of sugar at breakfast alone. Not only is [added](#) sugar a risk to teeth, the energy in sugar is easy to overconsume, increasing the risk of Type 2 diabetes. In turn, diabetes significantly increases the risk of cognitive decline and dementia, and the longer someone has the condition the greater the risk, so it is very worrying that [rates](#) of diagnosis in childhood are [on the rise](#). Good things to eat during childhood are: oily fish such as salmon, [mackerel](#), sardines, [trout](#), [anchovies](#), [kippers](#); fresh fruit or cheese with [oat crackers](#) for snacks; and low- or no-sugar drinks.

ADULTHOOD

Ultra-processed foods [make up](#) 55 per cent of the UK adult diet, the highest in Europe. Ultra-processed foods are sold ready-to-eat or ready-to-heat and produced using ingredients or processes for which there is no domestic equivalent. To improve [palatability](#) and [shelf-life](#), these foods tend to be higher in [added](#) sugar, fat and salt, and contain less fibre than their homemade equivalents. So how might having a large proportion of these foods in our diets be affecting our brains? Research indicates that it is causing us [to miss out](#) on brain-healthy nutrition. Research has shown a correlation between diet quality and size of the hippocampus (the brain's memory centre). The greater the proportion of ultra-processed foods in the diet, the smaller this brain area — this is a concern because [loss](#) of brain volume is linked to poorer function. Indeed, a recent study found that just a few days on a high ultra-processed foods diet caused damage to the hippocampus that tracked with [impairments](#) in learning and memory. Though we are still in the early days of this research, evidence is showing that higher consumption of ultra-processed foods is linked to increased risk of depression and [harmful](#) changes in the regions of the brain linked to learning and memory. Good things to eat during adulthood are: [leafy green vegetables](#) (such as spinach, [watercress](#), [rocket](#), kale) on a daily

basis; [beans](#), legumes and [wholegrains](#); and coffee or tea (preferably with little sugar or cream [added](#)).

LATER IN LIFE

That dementia is currently the leading cause of death in the UK is not simply an [artefact](#) of longer life expectancy, because we know that other, longer-lived nations, such as Japan and Italy, have lower dementia [rates](#).

Revealingly, one study found that the Japanese Alzheimer's disease rate had increased from 1 per cent in 1985 to 8 per cent in 2008 and cited the increased consumption of a western-style diet as the cause. What low-dementia rate nations have in common is moderate fish and [seafood](#) consumption, plenty of vegetables and [beans](#), fermented foods eaten regularly, and tea and coffee. Good things to eat later in life are: oily fish; kimchi; [sauerkraut](#); kefir or [live yogurt](#); and [berries](#) such as [strawberries](#), raspberries, [blueberries](#), [blackcurrants](#), [blackberries](#), and cooked elder [berries](#). Published in The Guardian on February 15, 2023. Reprinted with permission.

Glossary

- **anchovies** = acciughe
- **blueberries** = mirtilli
- **blackcurrants** = ribes nero
- **linking** = associare
- **on the rise** = in aumento
- **palatability** = appetibilità
- **strawberries** = fragole
- **shelf-life** = scadenza
- **artefact** = risultato
- **sauerkraut** = crauti
- **IQ** = IQ: quoziente d'intelligenza (intelligence quotient)
- **loss** = perdita
- **fuelled** = alimentare
- **ensure** = garantire
- **infancy** = prima infanzia
- **fatty acids** = acidi grassi
- **laid** = porre le basi
- **impairments** = deficit
- **blackberries** = more
- **lesser-known** = meno conosciuto
- **make up** = costituire
- **amounts** = quantità
- **added** = aggiunto
- **mussels** = cozze
- **rocket** = rucola
- **beans** = fagioli
- **rates** = indici
- **watercress** = crescione
- **live yogurt** = yogurt con fermenti vivi
- **shaped** = plasmare
- **damage** = danno
- **DHA** = acido docosaesaenoico (docosahexaenoic acid)
- **kippers** = aringhe affumicate

- **seafood** = frutti di mare
- **source** = fonte
- **mackerel** = sgombro
- **berries** = bacche
- **Seaweed** = alghe
- **draw** = attingere
- **trace mineral** = oligoelemento
- **dairy** = latticini
- **unavoidably** = inevitabilmente
- **elderberries** = bacche di sambuco
- **lack** = mancanza
- **intake** = assunzione
- **leafy green vegetables** = verdure a foglia verde
- **raspberries** = lamponi
- **survey** = indagine, studio
- **trout** = trota
- **oat crackers** = biscotti di avena
- **wholegrains** = cereali integrali
- **impairs** = compromettere, danneggiare
- **largely** = principalmente
- **to miss out** = lasciarsi sfuggire
- **harmful** = dannosi