



Mat, betennelse og utmattelse

Hvordan kan unge spise seg til bedre energi og humør?



Giddeløse dyr...

A person wearing a blue hoodie is sitting on a grey carpeted floor, covering their face with both hands. In the background, there are several cardboard boxes and a yellow object. A dark grey semi-transparent banner is at the bottom of the image.

Lignende mekanismer hos oss...

Masse forskning på området!

Review > [BMC Med.](#) 2013 Sep 12;11:200. doi: 10.1186/1741-7015-11-200.

So depression is an inflammatory disease, but where does the inflammation come from?

Michael Berk¹, Lana J Williams, Felice N Jacka, Adrienne O'Neil, Julie A Pasco, Steven Moylan, Nicholas B Allen, Amanda L Stuart, Amie C Havlev, Michelle L Bvrne, Michael Maes

> [Proc Natl Acad Sci U S A.](#) 2017 Aug 22;114(34):E7150-E7158. doi: 10.1073/pnas.1710519114. Epub 2017 Jul 31.

Cytokine signature associated with disease severity in chronic fatigue syndrome patients

Jose G Montoya^{1 2 3}, Tyson H Holmes^{2 3 4}, Jill N Anderson^{1 2}, Holden T Maecker^{3 4 5}, Yael Rosenberg-Hasson^{3 4}, Ian J Valencia², Lily Chu², Jarred W Younger⁶, Cristina M Tato^{3 4},

An anti-inflammatory diet as a potential intervention for depressive disorders: A systematic review and meta-analysis

Katie Tolkien¹, Steven Bradburn², Chris Murgatroyd¹

Affiliations + expand

PMID: 30502975 DOI: [10.1016/j.clnu.2018.11.007](#)

[Free article](#)

Abstract

Background & aims: There is a large body of evidence which supports the role of inflammation in the pathophysiology of mental health disorders, including depression. Dietary patterns have been shown to modulate the inflammatory state, thus highlighting their potential as a therapeutic tool in disorders with an inflammatory basis. Here we conduct a systematic review and meta-analysis of current literature addressing whether there is a link between the inflammatory potential of a diet and

Review > [Front Immunol.](#) 2019 Jul 19;10:1696. doi: 10.3389/fimmu.2019.01696. eCollection 2019.

The Role of Inflammation in Depression and Fatigue

Chieh-Hsin Lee¹, Fabrizio Giuliani^{1 2}

Affiliations + expand

PMID: 31379879 PMCID: [PMC66](#)

Abstract

Review > [Nat Rev Neurosci.](#) 2008 Jan;9(1):46-56. doi: 10.1038/nrn2297.

From inflammation to sickness and depression: when the immune system subjugates the brain

Robert Dantzer¹, Jason C O'Connor, Gregory G Freund, Rodney W Johnson, Keith W Kelley

Affiliations + expand

Clinical Trial > [Arch Intern Med.](#) 1987 Sep;147(9):1577-80.

Psychiatric complications of long-term interferon alfa therapy

P F Renault, J H Hoofnagle, Y Park, K D Mullen, M Peters, D B Jones, V Rustgi, E A Jones

PMID: 3307672

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Review > [Trends Immunol.](#) 2006 Jan;27(1):24-31. doi: 10.1016/j.it.2005.11.006. Epub 2005 Nov 28.

Cytokines sing the blues: inflammation and the pathogenesis of depression

Charles L Raison¹, Lucile Capuron, Andrew H Miller

Affiliations + expand

PMID: 16316783 PMCID: [PMC3392963](#) DOI: [10.1016/j.it.2005.11.006](#)

Abstract

Increasing amounts of data suggest that inflammatory responses have an important role in the pathophysiology of depression. Depressed patients have been found to have higher levels of proinflammatory cytokines, acute phase proteins, chemokines and cellular adhesion molecules. In addition, therapeutic administration of the cytokine interferon-alpha leads to depression in up to 50% of patients. Moreover, proinflammatory cytokines have been found to interact with many of the pathophysiological domains that characterize depression, including neurotransmitter metabolism, neuroendocrine function, synaptic plasticity and behavior. Stress, which can precipitate depression,

Hva vet vi?

Betennelse er knyttet til psykisk sykdom



Infeksjoner (som gir betennelse) gir utmattelse og nedstemthet

Betennelse er knyttet til utmattelse og depresjon



Dysbiose (som gir betennelse) er knyttet til psykisk lidelse

Betennelsesdempende tiltak virker mentalt forløsende



Betennelsesfremmende injeksjoner gir slapphet og tristhet

Hva er egentlig betennelse, og hvorfor påvirker det sinnsstemning og atferd?

En reaksjon på noe farlig

- Oppstår ved infeksjon og skade
- Gir en flom av immunkomponenter til stedet

Adaptivt!

- Energibesparende
- Beskyttende
- Tilhelende

Men... dette gjelder akutt. I dagens samfunn sliter vi med **kronisk betennelse!**



Maten er en sentral årsak!



Inflammatory Diseases

Go to: ►

Over the most recent decade it has become clear that inflammation is a central etiological factor in many of the diseases and health disorders of the modern world, including cardiovascular disease, obesity, depression, and Alzheimer disease ([9](#), [10](#), [18–22](#)). This knowledge is now gradually becoming incorporated into nutrition curricula, largely as a result of the recognition that nutrition is an important modulator of the immunological condition ([9](#), [10](#), [23](#), [24](#)). Whereas a healthy diet can contribute to homeostasis, a diet with unfavorable nutritional characteristics can lead to chronic inflammation through a number of mechanisms, such as by causing gut dysbiosis, buildup of arterial plaque, and excess adipose tissue ([9](#), [10](#), [18](#), [21](#), [23](#), [24](#)).

Unge matvaner

- Lavt inntak av frukt, grønnsaker og sjømat
- En del søtsaker
- Beige mat!

Mange er bekymret for vekta, men tenker ikke nødvendigvis på effekten på topplokket!



UNGKOST 3 (2015), en landsomfattende undersøkelse blant 4. og 8. klassinger, fant...

Frukt, bær og grønt



<200 g/d

*(noe mer med
juice/smoothie)*

Fisk og skalldyr



~25 g/d

(betraktelig mer kjøtt)

Søtsaker



~20-30 g/d

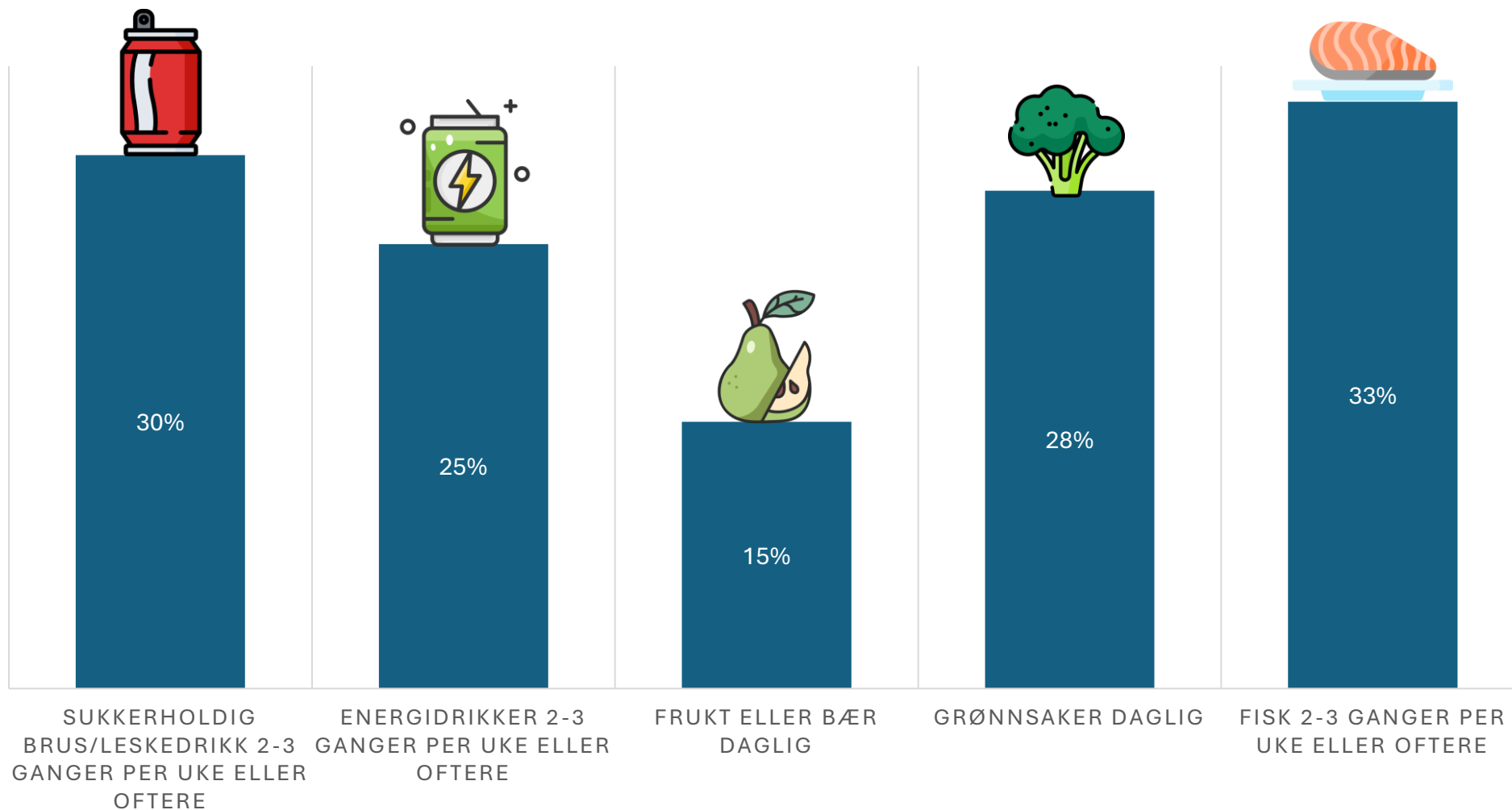
Saft/brus



2-3 dl/d

Hva med de litt eldre?

SHoT (2022), en landsomfattende spørreundersøkelse blant studenter, fant...



Hva kan vi gjøre i praksis?

Fra...

1. Sukker
2. Salt
3. Tilsetningsstoffer
4. Omega-6 fettsyrer
5. Kasein og gliadin
6. Transfett
7. Ensidighet
8. Raffinert



Til...

1. Fiber
2. Antioksidanter
3. Omega-3 fettsyrer
4. Naturlig søtning
5. Gunstige bakterier
6. Vitamin D
7. Bredde
8. Uraffinert



1. Erkjenne og bevisstgjøre om betydning og at gode matvaner er selvforsterkende!
2. Lage mat med de unge fra bunnen av
3. Få og gi innsyn i dyrs og planters miljø og liv
4. Skape sunt forhold til mat (Hvordan?)

