

VITAMINE E



# TO TOUT SAVOIR SUR LE SAUMON ET LES OMÉGA-3

EPA/DHA



ALA



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# Quel intérêt de manger du saumon dans l'absolu ?



Une bonne source de:

- Oméga-3
- Protéines
- Phosphore
- Vitamines B1, B3, B6, B12
- Vitamine D (un peu)

# Les différents acides gras

- Saturés : viandes, produits laitiers, huile de palme, huile de coco...
- Monoinsaturés : huile d'olive, avocat, amande, noisette, noix de macadamia...
- Polyinsaturés : oméga-3 + oméga-6
- Trans : huiles partiellement hydrogénées (frites)

Essentials →

### Omega-3 family

$\alpha$ -linolenic acid  
18:3  $\omega$ -3

stearidonic acid  
18:4  $\omega$ -3

eicosatetraenoic acid  
20:4  $\omega$ -3

eicosapentaenoic acid  
EPA 20:5  $\omega$ -3

docosapentaenoic acid  
DPA 22:5  $\omega$ -3

docosahexaenoic acid  
DHA 22:6  $\omega$ -3

### Eicosanoids

pg = prostaglandin tx = thromboxane  
pgi = prostacyclin lt = leukotriene

= less inflammatory  
= more inflammatory

### Omega-6 family

linoleic acid  
18:2  $\omega$ -6

$\gamma$ -linolenic acid  
GLA 18:3  $\omega$ -6

dihomo  $\gamma$ -linolenic acid  
DGLA 20:3  $\omega$ -6

arachidonic acid  
AA 20:4  $\omega$ -6

docosatetraenoic acid  
22:4  $\omega$ -6

docosapentaenoic acid  
22:5  $\omega$ -6

elongase

$\Delta$ 5 desaturase

$\Delta$ 4 desaturase

Sprecher's Shunt

elongase

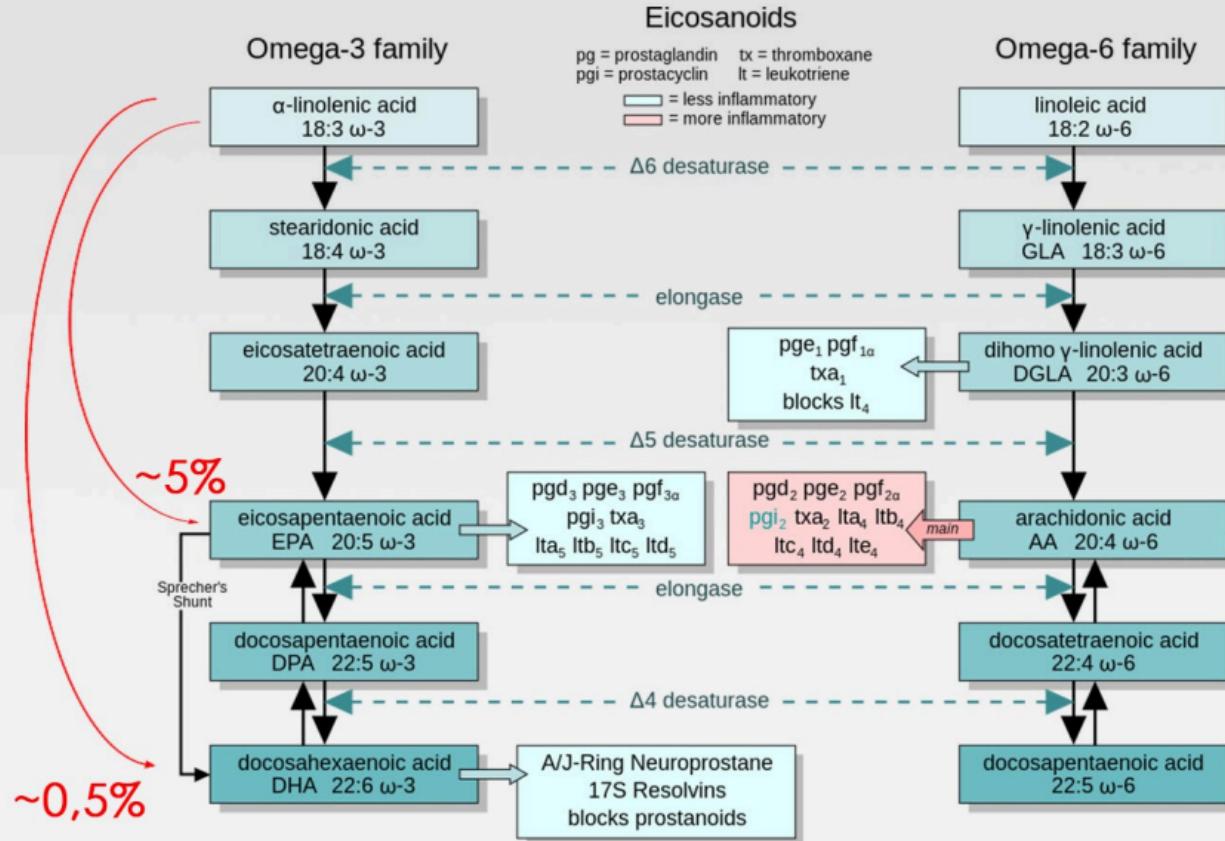
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A/J-Ring Neuroprostane  
17S Resolvins  
blocks prostanoids

$\Delta$ 6 desaturase



# L'explosion de la consommation d'oméga-6



- Huiles de tournesol, de maïs, de soja, margarines...
- Céréales



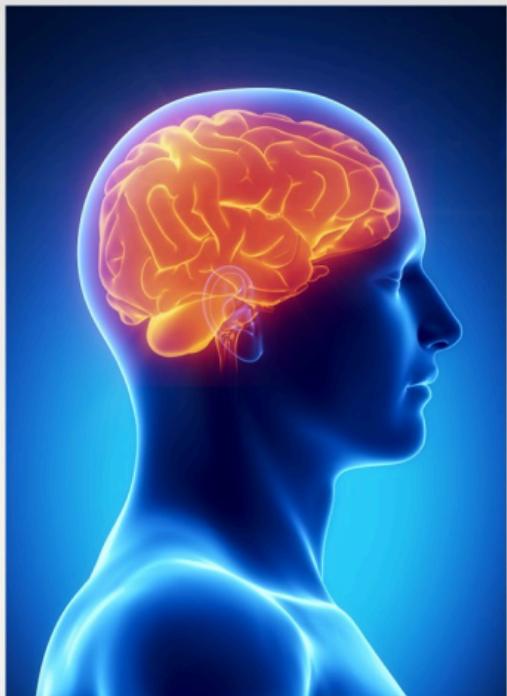
- Viandes et produits laitiers d'animaux nourris au maïs et au soja VS. ceux élevés en pâturages

# Pourquoi les oméga-3 sont indispensables pour votre santé ?



- Rentrent dans la composition des membranes des cellules de votre corps, ce qui joue sur leur fluidité et l'activité de certaines enzymes
- Influent sur l'expression de certains gènes, notamment ceux liés à l'inflammation
- Permettent de baisser la mortalité cardiovasculaire
- Des taux sanguins faibles d'EPA et de DHA sont liés certains troubles et maladies : trouble bipolaire, déclin cognitif, maladie d'Alzheimer...

# L'importance des oméga-3 pour le cerveau



- +60% de la matière sèche du cerveau est composée de lipides, dont une part importante de DHA
- 25% du cholestérol du corps est situé dans le cerveau
- Historiquement, un rôle clé du DHA dans l'augmentation de la taille de notre cerveau

# Un rôle fondamental pour le cerveau du bébé



- DHA, ALA et Acide Arachidonique (autre oméga-6) sont les acides gras les plus présents dans le plasma du cordon ombilical
- Meilleur développement cognitif chez les enfants dont la mère a consommé + de 340g de poisson par semaine
- Problème : 99% des laits infantiles ne sont pas enrichis en DHA
- Important pour le développement visuel

# Les problèmes de l'élevage industriel



- Concentration énorme qui favorise le développement des parasites (poux de mer)
- Des fonds marins détruits par l'accumulation de pesticides, de déjections et de restes de nourriture

# Les poux de mer : l'ennemi du saumon



- Utilisation du diflubenzuron, un pesticide cancérigène aspergé directement dans les fermes aquacoles
- Les toxines se stockent dans les graisses
- Un cercle infernal avec l'augmentation des doses ou des produits plus agressifs

# Alimentation des saumons d'élevage : des croquettes polluées



- Fabriquées à partir de farines de poissons de pêche, dont certains pêchés en mer Baltique, l'une des mers les plus polluées au monde
- Utilisation d'un pesticide, l'éthoxyquine, en tant que conservateur, qui pourrait atteindre le cerveau et est un cancérogène probable, et qui se retrouve ensuite dans les graisses des saumons

# La pollution au mercure

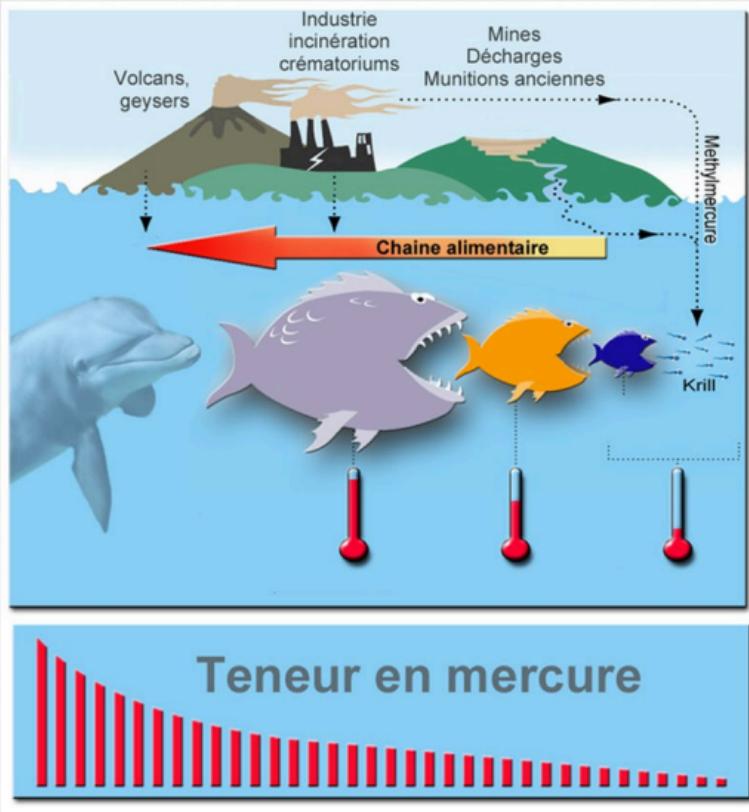


- Un métal très toxique
- Origines : éruptions volcaniques et activité humaine (centrales à charbon, production de pétrole...)
- Pollution des mers, des océans et des sols

## Le sélénium : l'élément essentiel pour se protéger du mercure

- Le mercure est toxique pour le cerveau car il se lie au sélénium et inhibe certains enzymes dépendant de ce dernier, les sélеноenzymes, qui protègent le cerveau des dommages oxydatifs.
- Le plus important est donc d'avoir un ratio positif sélénium/mercure, ce qui est le cas dans les petits poissons gras. Les poissons d'eau douces sont en général pauvres en sélénium.
- On peut renforcer ses apports en sélénium en mangeant 1 à 2 noix du Brésil par jour ou tous les 2 jours.

# L'accumulation dans la chaîne alimentaire



- Les + pollués : les gros poissons prédateurs (thon, espadon...)
- Saumon (sauvage et d'élevage) : dans la fourchette basse en général
- Le - pollués : les petits poissons (sardines, anchois, maquereaux...)

## Mise en pratique : réduire les oméga-6

- Eliminer les huiles les plus riches en oméga-6 : tournesol, maïs, soja, pépins de raisin, carthame...
- Utiliser modérément les huiles ayant un bon ratio oméga-6/3 mais une quantité absolue d'oméga-6 élevée : colza, noix...
  - Eliminer toutes les margarines
  - Privilégier les animaux nourris en pâturages
  - Réduire sa consommation de céréales
- Consommer régulièrement mais modérément des oléagineux, en variant pour optimiser les apports

# Optimiser ses apports en EPA et DHA



- Manger entre 300 et 500 g de poissons gras par semaine, suivant son gabarit et la réduction des oméga-6, soit entre 2 et 4 fois par semaine
- Privilégier avant tout les petits poissons : sardines, anchois, maquereaux, harengs...
- Le saumon est une option possible mais en variant avec les autres espèces
- Préférer le saumon bio d'Irlande et/ou le Saumon argenté du Pacifique
- Ne pas consommer trop de saumon fumé

## Et les compléments d'oméga-3 à base d'huiles de poisson ?



- Pas équivalent au fait de manger du poisson, ce dernier contient aussi des protéines, du sélénium, des vitamines, de l'iode, etc. : toujours manger de vrais aliments en priorité
- Attention à l'excès d'EPA qui va bloquer l'action de l'acide arachidonique, un oméga-6 très important
- Les compléments peuvent avoir tout de même un intérêt pour les personnes incapables de manger du poisson ou pour celles souffrant de problèmes inflammatoires ou de certains troubles mentaux
- Attention aux personnes prenant un traitement anticoagulant

## Végétariens / végétaliens : augmenter les apports en ALA

- Source de base : les graines de lin, moulues de préférence pour mieux les digérer - environ 1 c à s / jour
  - Huile de lin : attention à l'oxydation
- Attention à l'abus des graines de lin : contiennent des phytoestrogènes (plus que le soja) qui peuvent poser des problèmes chez les femmes avec une dominance oestrogénique
- Augmenter ses apports en vitamine E pour se protéger de l'oxydation de l'ALA : noisette, avocat, épinard...
- Varier son assiette avec les sources secondaires : noix, graines de chia, graines de chanvre, mâche, roquette, pourpier...

## Végétariens / végétaliens : optimiser la conversion en EPA/DHA

- Les nutriments importants pour une bonne conversion : zinc, vitamine B3, vitamine B6, vitamine C, magnésium
- Surveiller surtout l'apport en zinc : celui dans les végétaux est assez mal absorbé, les meilleures sources étant les fruits de mer
- Ne pas faire un excès d'ALA qui va diminuer la conversion des oméga-6 (Acide linoléique en Acide arachidonique)
- Acide arachidonique : une carence peut entraîner des problèmes de peau sèche ou qui gratte, de cheveux secs, de pellicules, d'infertilité ou favoriser la dépression, la schizophrénie, le syndrome bipolaire...

# Le DHA à base de microalgues



- En quantité trop faible dans les grosses algues fraîches (à consommer tout de même pour l'apport en iodé)
- Fabrication d'huile à partir de certaines espèces de microalgues contenant du DHA et un peu d'EPA
- Un réel intérêt chez les femmes enceintes et allaitantes (surtout pour les végétariennes) pour soutenir le développement du cerveau du bébé (ou pour les autres végés voulant optimiser leurs apports)

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