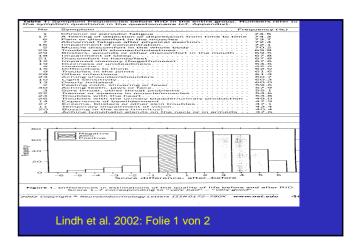
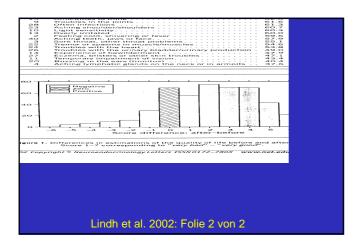
Lindh et al. 2002

- 400 Patients
- Several complaints for years and decades
- Many therapies without success
- Yet, Removal of dental meavy metals
- Result:
 Alleviation of symptoms in 70% of the patients

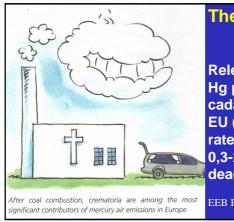




Toxicity of amalgam compared with Composites

100 -800 fold more toxic then toxic compounds of Composites

Reichl et al. 2001, 2006, Kehe et al. 2001, Walther et al. 2002)



The Ende

Release of 2-3 g Hg per cremated cadaver in the EU (cremationrate:75%). 0,3-2g Hg is deadly

EEB Bruxelles 2007, 2014

Mercury (Biochemical Effects) I

- Inhibition of enzymes, ion channels and transport proteins
- ■↑ Protein aggregation
- ■↑ Free radicals and ↓ antioxidants enzymes
- Strong binding with Selenium (Hg-Selenide)→
 - –↓ Se-dependent enzymes (e.g. glutathione peroxidase)
 - -Selenium depletion

Mercury (Effects) II

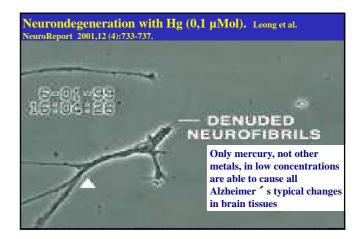
- Lipid peroxidation, leading to membrane damage
- **DNA damage**
- Nonspecific inhibition and specific activation of the immune system

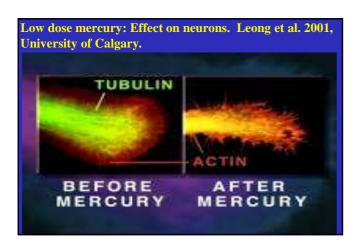
Mercury (Effects) III

- ■↓ Glutamate degradation and ↑ glutamate oxidation
- Irreversible inhibition of tubulin (the most important intracellular transport protein; it is especially sensitive to mercury)
 - -Decreased endo- and exocytosis
 - –↓ Neurotransmitters
 - -Profound effect on non-dividing cells (e.g. nerve cells)

Mercury (Effects) IV

- ↓ Glutathione (the most important cell protective enzyme)
- ↓ Energy metabolism (glucose, mitochondria, ATP, NADH)
- Synergistic effect (1+1=100) with other toxins, for example LD1 (Hg) and LD1 (Pb) = LD100
- In vitro: ↑Tau + NFT↑ + A-Beta↑ via Hg in low concentration





Neuroendocrinology Letters Volume 35 No. 7 2014
ISSN: 0172-780; ISSN: 0172-780; ISSN: D172-780; ISSN: D172-780

DOI 10.1007/s10534-013-9700-9

New science challenges old notion that mercury dental amalgam is safe

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Received: 27 December 2013/ Accepted: 29 December 2013

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Journal of Toxicology and Environmental Health, Part A: Current Issues

Publication details, including instructions for authors and subscription information: http://www.tandfonline.com/loi/uteh20

Genetic Polymorphisms of Catechol-O-Methyltransferase Modify the Neurobehavioral Effects of Mercury in Children

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