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Nutritional Challenges in Feeding the Elderly

Nutritional Management of the Frail Elderly present Challenges and future Treatments

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Nutritional management of the frail elderly. Present challenges and future treatments

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Aging - food intake - hormonal replacement - physical activity

Causes possible to treat

- Low food intake
 - anorexia of aging (cytokines?, CCK?)
 - poor oral health
- Inactivity
- Declining hormonal levels
 - estrogen (menopause)
 - testosterone (andropause)
 - dehydroepiandrosterone (DHEA, adrenopause)
 - growth hormone (somatopause)

Increase food intake

Orexigenic treatment

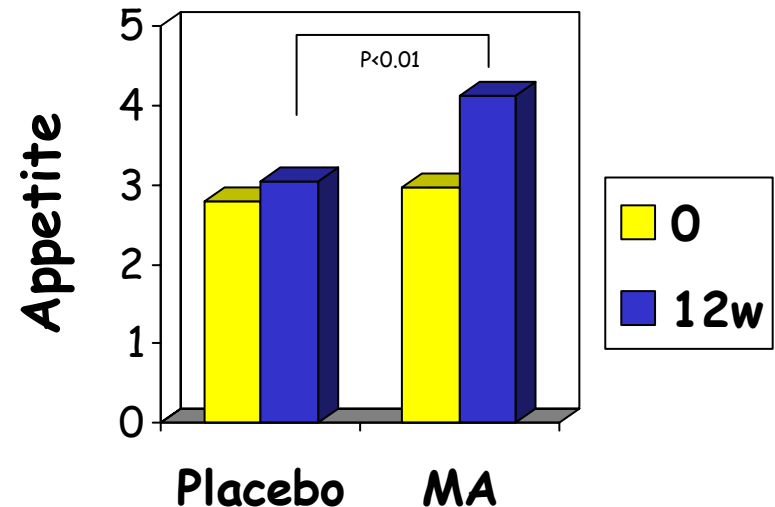
- **Megestrol acetate?**

Downregulates cytokine activity

- **Cholecystokinin antagonism?**

- **Dronabinol?**
One study in AD

63 NH-residents, 76 y, RCT,
MA 12 w, weight and QoL ↑



Increase food intake

Dental restoration

- Edentulousness ↘
- 1/4 NH residents lack dental prerequisites for chewing (Nordenram 2001)
- Causal relations obscure
- Only few intervention studies performed
- Societal trend to intervene

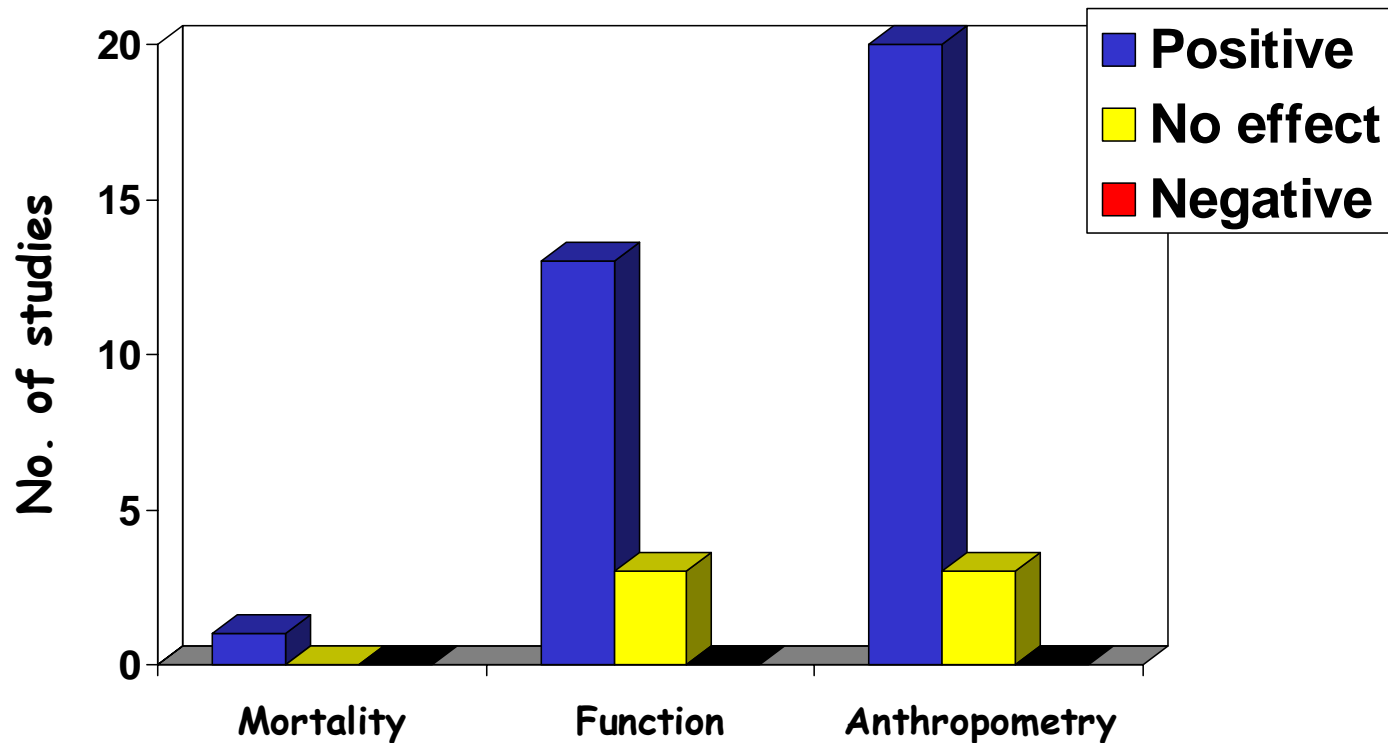
Dental treatment in NH residents

- ✓ 37 vs. 38 subjects
- ✓ Energy intake -
- ✓ Dietary habits changed
- ✓ Weight -

Elmstahl et al. *Gerodontology* 1988;4:6-12

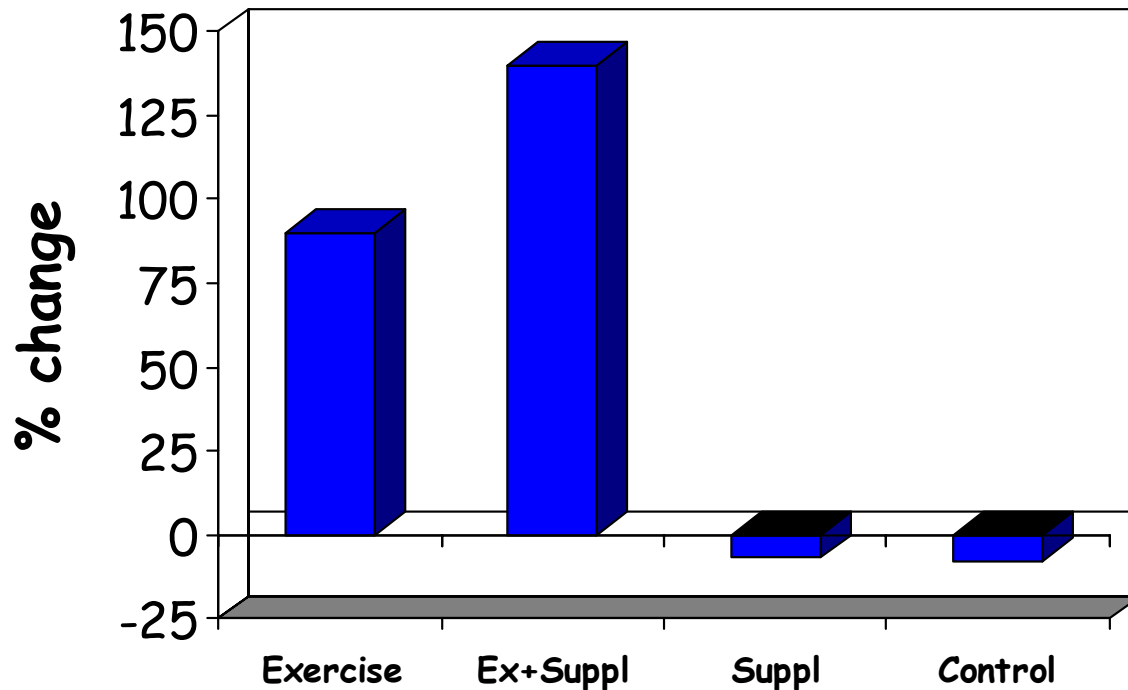
Increase food intake

Effects of food supplementation to elderly- a systematic review (25 studies (14 RCT))



Increase physical activity

Muscular strength after exercise and nutrition



100 NH-subjects, 87 y, ex±suppl 10w, gait velocity / stair-climbing / activity / by exercise

Hormonal replacement therapy

Testosterone

- Hypogonadism in ~50% of aged men
- Controversial results
- Lean mass ↑, fat mass ↓
- Limited effects on muscle strength
- Prostatic cancer risk?

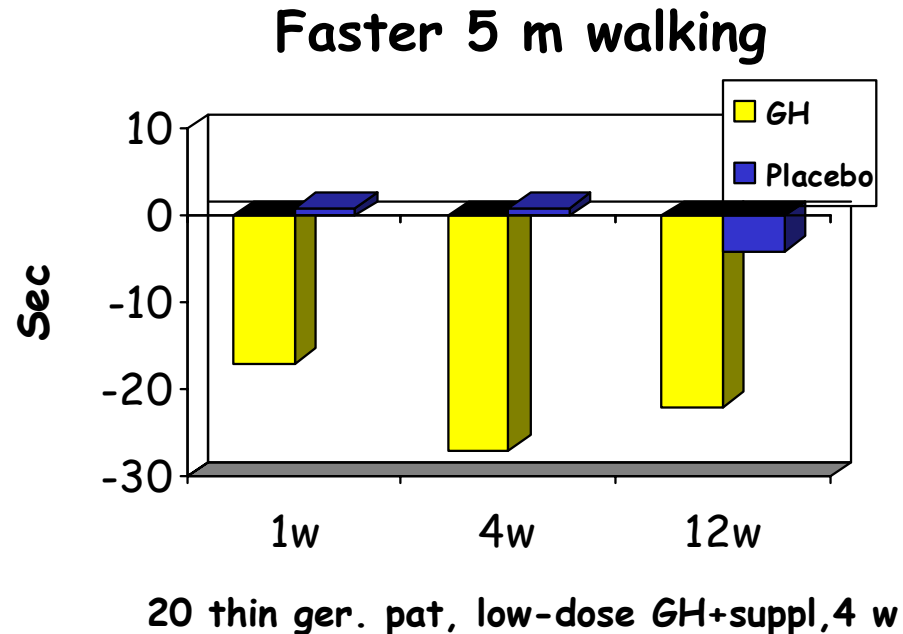
Estrogen

- Often introduced early in menopause
- Fracture and CVD prevention established
- Risk for thrombosis, cancer of breast and endometrium

Hormonal replacement therapy

Growth hormone

- Somatopause
- IGF-1 ↓
- Only few studies
- Injection
- Expensive
- Diabetes risk



Summary - the treatment of frailty needs a multidimensional approach

✓ Established care

- Good nutrition, liquid supplementation
- Exercise training
- Dental care (?)



✓ Potential future care

- Appetite stimulation
- Hormonal replacement (testosterone, estrogen, GH)