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# Ouder worden en smaak, wat zijn de gevolgen en risico's?

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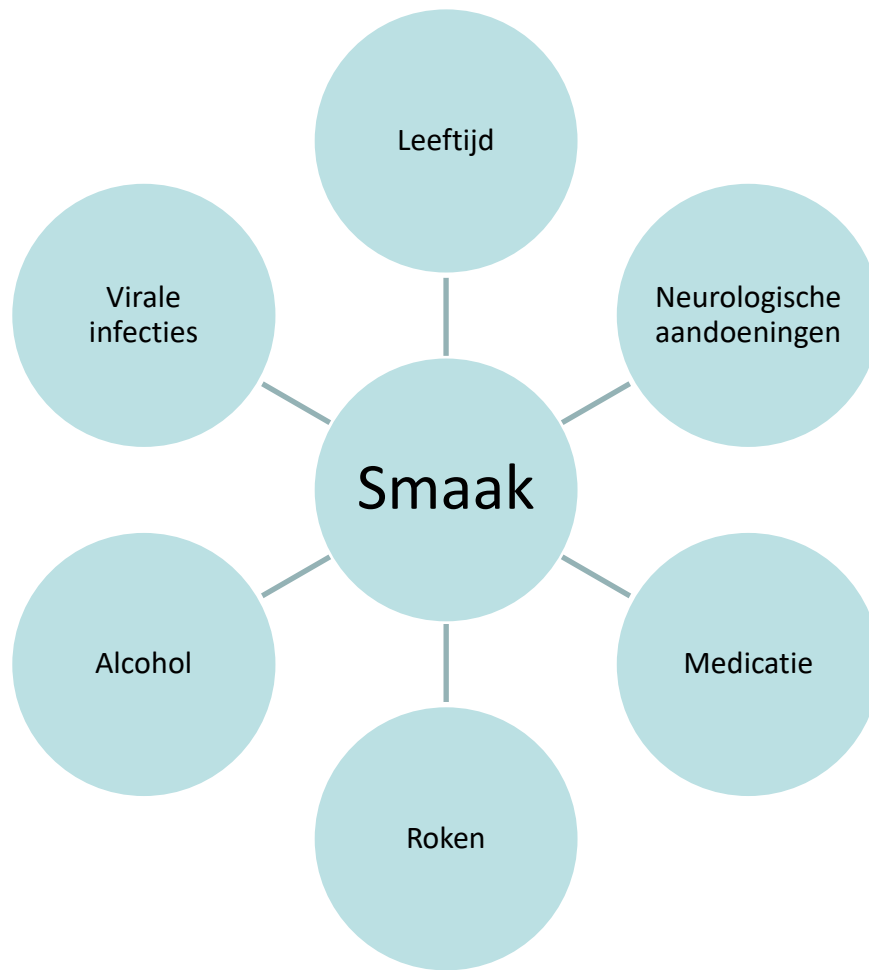
# Oorzaken van smaakverandering

**Table 1.** Overview of main determinants of taste alterations and their causes.

Factor	Sub-Factor	Proposed Mechanisms of Action	References
Genetics	Genetic disorders (e.g., Familial dysautonomia)	Complete or severe depletion of taste papillae	[37]
	Single nucleotide polymorphisms on taste receptor genes	Influence individuals' ligand-receptor binding, generating different tasting phenotypes	[38–40]
External	Chemicals (both from external and internal sources)	Interfere with the chemical composition or quantity of saliva; change the oral mucus membranes; impair taste receptor cells and efficacy of transduction; directly affect taste nerves	[41]
	Drugs (e.g., antimycotics, antibiotics, anti-inflammatories, immunosuppressants, neurologic medications)	Changes in saliva production, secretion, quantity, and diffusion; damage to cranial nerves; modification of afferent pathways from the central nervous system	[41–43]
	Trauma (e.g., brain contusion, hemorrhage)	Direct injury to the tongue and to taste buds; damage taste nerves	[44]
	Surgeries (e.g., removal of third molars, middle ear, head and neck surgeries, general anesthesia)	Partial or complete nerve transection, traction, or stretching	[45,46]
	Oral appliances and conditions	Damage to central or peripheral nerves; decreased salivary flow rate	[47,48]
	Smoking	Increases respiratory infections and dental problems	[49]
	Alcohol consumption	Changes the sensitivity of taste receptors and interferes with the absorption of micronutrients, leading to functional changes in saliva and morphological changes in the taste buds	[50]
	Radiation therapies (e.g., in patients with head and neck cancers)	Impair intensity responsiveness, taste recognition and detection thresholds	[51]

Table 1. Cont.

Factor	Sub-Factor	Proposed Mechanisms of Action	References
Nutrition	Zinc deficiency	Is a component of proteins involved in taste transduction	[52]
	Specific foods (e.g., <i>Pinus armandii</i> pine nuts)	No potential triggers or common underlying medical causes have been identified yet	[53]
Biology	Sex	Sex steroid hormones may modulate taste processing in the brain	[54]
	Aging	Reduction in taste buds and papillae density; reduced neural responsiveness to tastes	[55]
	Neurological diseases (e.g., dementia, Parkinson syndrome)	Involvement of the frontal cortex; changes in salivary constitution	[56,57]
Viral illness	Common cold (Rhinoviruses), Influenza (Orthomyxoviridae), MERS (MERS-CoV) Hepatitis (Hepatoviruses)	Mostly due to the nasal blockage, obstruction and swelling of the mucosa generated by increased mucus production, and changes in mucus composition; generate inflammation responses in taste tissues	[58–61]
	COVID-19 (SARS-CoV-2)	Appears to impair more sweet and bitter tastes; may result from direct infection of cells in the tongue; secondary consequences of obstruction due to inflammation; damage to cranial nerves following the release of inflammatory cytokines; and/or lead to changes in localized cellular zinc homeostasis in oral gustatory cells	[61–65]



# Medicatie

**Table 3.** Selected side effects of drugs causing decreased food intake.

Side effect	Drug
Loss of appetite	Digoxin, captopril, non-steroidals, antibiotics, anti-histamines, sedatives, neuroleptics, tricyclic anti-depressants
Decreased/altered taste	Captopril, penicillin, anti-hypertensives, analgesics, anti-diabetics, psychopharmaceuticals, cytostatics, vasodilators
Dry mouth (Xerostomie)	Anti-parkinsonians, anti-depressants, anti-histamines, anti-cholinergics
Nausea	Cytostatics, anti-hypertensives
Mental dysfunction	Psychopharmaceuticals

# Smaakdetectie



Zuur

Bitter



Zoet

Zout

Umami



# Voorkeuren

Consumptie zoet en zout



# Mogelijke risico's

- Ondervoeding door verminderde intake
- Eenzijdig eetpatroon
- Hoge suikerinname:

Aandacht voor diabetes of niet gedetecteerde diabetes

- Hoge natriuminname:

Aandacht voor cardiale toestand van de patiënt



# Risicofactoren voor ondervoeding

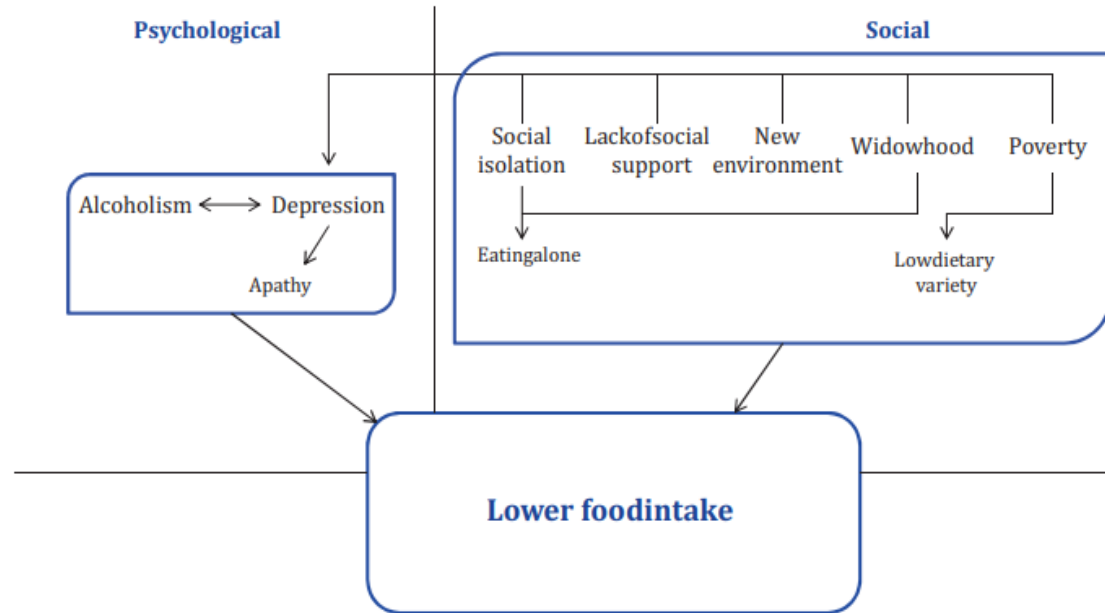
**Table 2.** Risk factors for undernutrition in the elderly.

	Geriatric patients	Healthy elderly
Loss of appetite	26	14
Masticatory problems	46	20
Dysphagia	18	10
Problems preparing food	44	16
Immobility	49	–
Dementia	20	–
Depression	13	8
Social isolation	27	–
Stressful life event	23	34

Modified from Volkert<sup>42</sup>

# Hoe hierop inspelen:

- Variatie, alternatieven aanbieden
- Alternatieven voor zout
- Focus op energie- en eiwitinname
- Sociale aspect van het eten



**Fig. 2.** Interactions between social and psychological factors influencing food intake in older persons.



Zieke  
populatie

Gezonde  
populatie

Elke setting vraagt z'n eigen specifieke aanpak:

- Ziekenhuis
- Rusthuis
- Thuissetting





# Vragen?