



# EPIDEMIOLOGY

skin = kůže

- Occupational dermatoses have accounted for **20%** of all the cases of occupational diseases in the Czech Republic.
  - irritant or allergic contact dermatitis = the most frequent occupation-related skin diseases,
  - physical and biological agents may occur, either as the final phase of a long-standing skin disorder or as the fast manifestation of prolonged occupational exposure,
  - cutaneous manifestations of toxic substances which produce their more serious dramatic effects on other organ systems.

The industries with greatest probability of causing occupation-related skin disease are

- leather goods,



- adhesive and sealant,



- abrasive products,



- health professions.



- food processing and packing,



- boat building and repair,

- agriculture and horticulture,



physical appearance and patterns of clinical  
conform with agents should  
history of exposure

relation between the suspected exposure and the onset

Removal from avoidance results in regression

Historical and clinical evidence diagnostic tests  
microbiologic examination

biopsy of active lesions



exposed areas of the skin

initial erythema and vesiculation

chronic scaling, fissuring and lichenification





## Strong bases      acids

exposure      penetrate deeper through the tissue planes causing more extensive destruction that continues for longer time

based on the areas of

and deep penetration and destruction

Hydrofluoric acid

rapid

wash dishes by hand

machinists using cutting fluids

housewife who



cell-mediated hypersensitivity response

T-cells

### causes

resins

agens

metal salts

trees

antibiotics

pharamaceuticlas

ink paints and plants

germicidal



### Patch testing

Strips of aluminium foil with lint attached

the patches are removed

further reading at 96 hours

after 48 hours

<b>DIFFERENCE BETWEEN:</b>	<b>IRRITANT</b>	<b>ALLERGIC</b>
People at risk	Everyone	Genetically predisposed
Mechanism of response	Nonimmunologic A physical and chemical alteration of epidermis	Delayed hypersensitivity reaction
Number of exposure required	Few to many depends on individual's ability to maintain an effective epidermal barrier	One or several to cause
Nature of substance	Organic solvent, soaps, acids	Sensitization
Evolution	Rapid (few hours after exposure)	Not so rapid
Margination and site	Well-defined to site of exposure	Polymorphical poor-defined, spreading in the periphery, may become generalized
Investigative procedure	Trial of avoidance	Trial of avoidance, patch testing
Management	Protection and reduced incidence of exposure	Complete avoidance





Bacteria  
fishermen

**erysipeloid** meat handlers farmers veterinarians

Viruses

**milker's nodules** milkers farmers veterinarians

Fungi  
professions  
workers

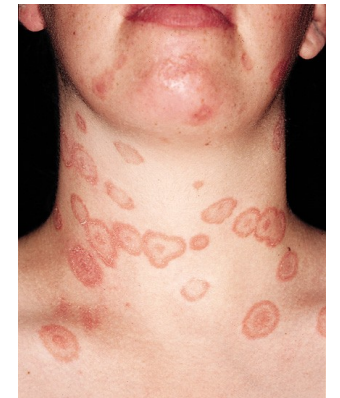
**dermatophytoses** animal handlers ranchers health

**candidiasis** food workers health-care

agricultural workers

Parasites

**scabies** health care workers teachers



comedones papules dry hyperkeratotic skin  
pustules  
hirsutism

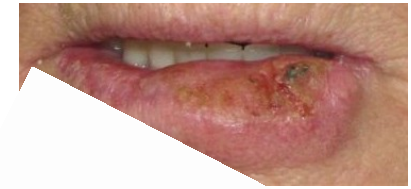
Type of acne	Cause
Oleosa	<b>Mineral oils</b>
Picea	<b>Tar</b>
Chlorina	<b>Chlorinated hydrocarbons</b> (eg, dioxin, chlorinated naphthalenes, dibenzofurans, polychlorinated biphenyls-PCBs).



epidermal-basal

squamous  
melanomas

omas



Actinic radiation

sunburn ray

ultraviolet radiation at 290 to 320 nm

farmers fishermen sailors

skin elements scarring cancer

burns necrosis teleangiectasis atrophy of all of the

derivates in coal tar  
polycyclic hydrocarbons

fossil fuels and  
arsen

lesions

flat



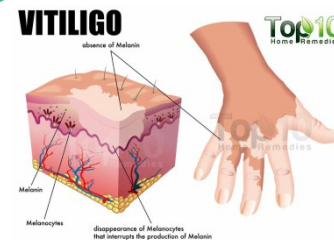
radiodermatitis  
phototoxic reactions

contact urticaria  
vitiligo

ulcers



folliculitis



[https://is.muni.cz/auth/el/1411/jaro2016/VLVL9X66c/um/58148858/occupational\\_disorders.pdf](https://is.muni.cz/auth/el/1411/jaro2016/VLVL9X66c/um/58148858/occupational_disorders.pdf)

[https://atlases.muni.cz/atlas/kuze/atl\\_cz/sect\\_main.html](https://atlases.muni.cz/atlas/kuze/atl_cz/sect_main.html)

<http://www.slideshare.net/daulatramdhaked/allergic-and-irritant-contact-dermatitis>

<http://www.dermnet.com/>

<http://www.dermnetnz.org/>

<http://zdravi.e15.cz/>