



MASSACHUSETTS
GENERAL HOSPITAL



HARVARD
MEDICAL SCHOOL

Psoriasis: Causes, Associated Health Problems, and Treatments

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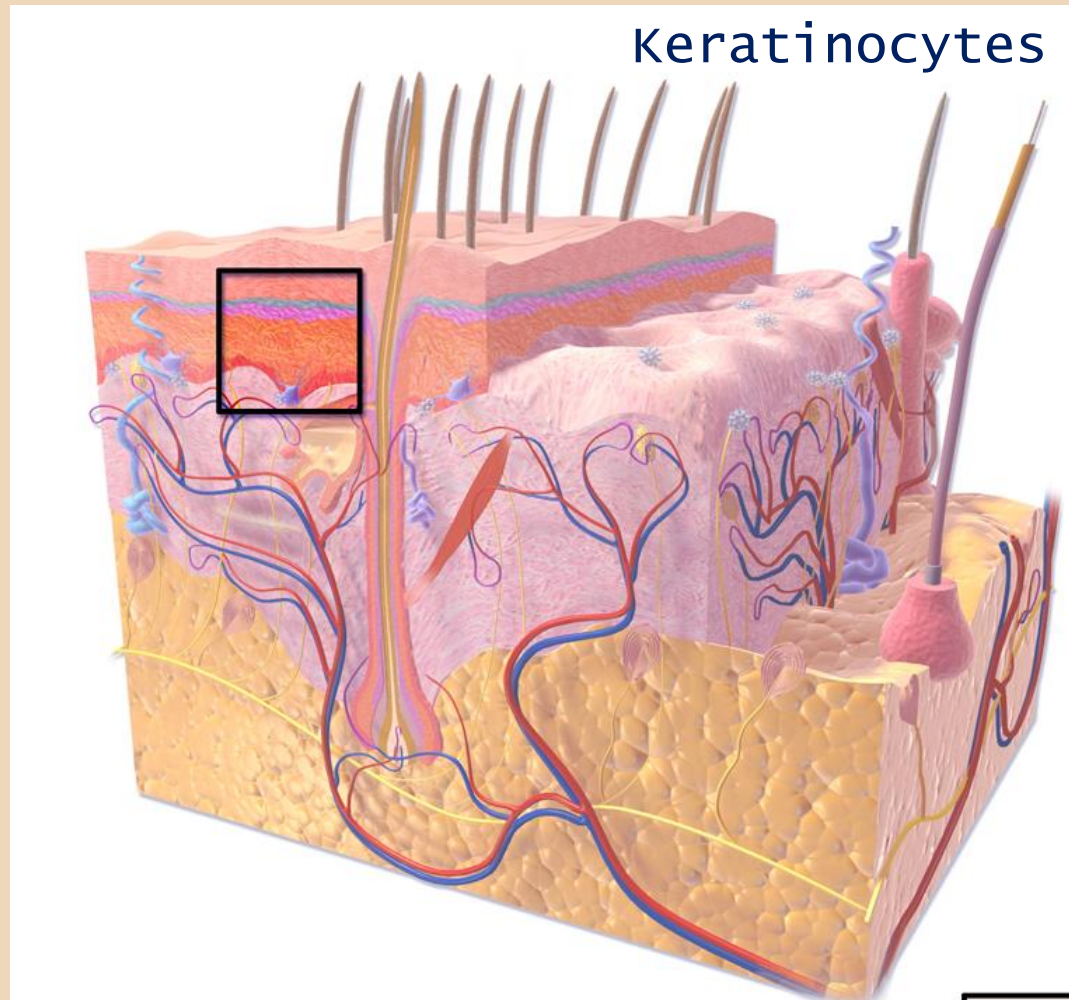
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Objectives

- Causes and triggers for psoriasis
- Associated health problems
- How psoriasis affects people socially
- Treatments for psoriasis

Skin



- Temperature
- Pressure
- Pain
- Retain water
- Sweat
- Protection
 - Injury
 - Infection
- Appearance

Immune system

- Protects against infection
- white blood cells (T cells, B cells, neutrophils [in pus])
- Lymph nodes, spleen, thymus, tonsils, appendix
- Not watching close enough
→ Cancer
- Watching too closely
→ Overactive (against keratinocytes in psoriasis)

Psoriasis

- Chronic, lifelong skin disease (NOT contagious)
- Teens to 30s (usually no trigger, sometimes strep infection)
- Can be associated with arthritis
- Overactive immune cells
→ skin thickening (keratinocytes)



Types of psoriasis

- Plaque psoriasis
- Inverse (skin folds)
- Guttate
- Palmar-plantar
- Erythrodermic (whole body red)
- Pustular (non-infected)

Cause of psoriasis

- still unknown
 - Stress, skin trauma, medications can worsen
- Rapid skin growth + inflammation
- T-cells react against skin
 - Cytokines (TNF- α , IL-23) \rightarrow skin cells divided 4-5x faster than normal \rightarrow thick white scale
- New blood vessels \rightarrow redness

Prevalence of psoriasis

- 2–3% of US population (5–7 million)
- Caucasian > skin of color
- Usually teens – 30s (onset)
- Genetic association but not 100%
- No cure
- Waxes and wanes

Diagnosis of psoriasis



<https://en.wikipedia.org/wiki/Psoriasis#/media/File:Psoriasis2010.JPG>

Flares of psoriasis

- Stress (emotional, physical)
- Medications
- Fall/winter
- Skin Trauma

Medications (examples)

- Thiazide diuretics
- Beta-blockers
- Calcium-channel blockers
- ACE inhibitors
- Oral steroids
- Non-steroidal anti-inflammatory
- Antimalarials
- Lithium

DO NOT STOP MEDICATIONS ON YOUR OWN! DISCUSS WITH YOUR DOCTOR FIRST!

Psoriasis and associated diseases

- Psoriatic arthritis (nail changes)
- High blood pressure
- Heart failure
- Diabetes
- Depression
- Alcoholism
- Heart attack

Link between psoriasis and diet

Reported to help

- Fish
- Zinc, folate, iron
- Fish oil
- Turmeric
- Flax seed oil
- Milk thistle
- Oregano oil
- Shark cartilage

Reported to worsen

- Gluten (wheat protein)
- Milk

Treatments for psoriasis

- Topical – steroids, non-steroidal
- Ultraviolet light and laser
- Oral – methotrexate, acitretin
- Injectable – biologics

Resources for psoriasis

- National Psoriasis Foundation
<https://www.psoriasis.org/>
- American Academy of Dermatology
<https://www.aad.org/public/diseases/scaly-skin/psoriasis>

Research at MGH (CURTIS)

<http://www.massgeneral.org/dermatology/services/curtis.aspx>

Thanks!