Nourish Your Skin: Skin Safety & Cancer Prevention

Presented by: Teresa Witkoske & Susie Neher
Purdue Health & Human Sciences Extension Educators
Nourish Your Skin

Written by:

Julie Garden-Robinson, Ph.D., R.D., L.R.D.
Aimee Henning, Student Dietitian
Sherri Nordstrom Stastny, Ph.D., R.D., C.S.S.D., L.R.D.
Objectives

• Be aware of the anatomy of the skin
• Increase awareness of what causes skin damage
• Know how to protect skin from UV (ultraviolet) damage through nutrition, hygiene and protective measures
• Be able to identify skin cancer risk factors and how to detect suspicious skin spots
Skin Model

- Hair
- Sebaceous Gland
- Sensory Nerve Ending
- Epidermis
- Nerve
- Dermis
- Subcutaneous Tissue
- Capillaries
- Sweat Gland
- Muscle
- Arteriole
- Fat, Collagen, Fibroblasts
Good skin condition depends on several factors:

- **Surface texture**: smooth without cracking
- **Color**: natural glow; absence of discolored spots
- **Hydration**: absence of dryness and flaking
- **Sebum concentration**: helps maintain adequate hydration
- **Surface acidity**: a low pH protects from pathogens

*Does skin condition reflect overall health?*
Skin Damage

Environmental and Endogenous Factors
- Sunlight exposure
- Pollution and smoke
- Smoking
- Hygiene practices
- Chemicals
- Poor diet

Skin Barriers are Broken
- Lower sebum - increased surface pH
- Fluid loss

Result is Oxidation
- Aging (wrinkling) - irritation
- Dryness - cracking
What do these all have in common?

Skin Damage

Cigarettes  Soap  Stress  Tanning Beds
Fact or Myth

Cigarette smoking does no damage to skin.

Myth: Smoking can speed up the normal aging process of your skin. Nicotine in cigarettes causes narrowing of the blood vessels in the outermost layers of your skin, impairing blood flow.
Fact or Myth

You should wash your face with the same soap that you use to wash your hands.

**Myth:** Hand soaps often contain antibacterial agents that kill harmful bacteria on your skin and the good bacteria that help prevent your skin from aging.
Soaps and detergents are two skin barrier breakers.

Avoid antimicrobial products for hand washing. Use alcohol-based cleansers for reducing bacteria if needed.

Frequent hand washing increases surface pH.
Increased stress may cause skin problems and irritation.

Fact: Stress hormones may make skin more prone to pimples.

Some people may get ulcers, some get migraines and other people may get a rash on their skin when they are under stress.
**Fact or Myth**

**Tanning beds are a good source of Vitamin D.**

**Myth:** UVA-emitting tanning beds are inefficient in increasing serum vitamin D levels.

**Self-tanning lotions are safe.**

**Fact:** The skin-darkening agent, DHA, is nontoxic for ingestion and topical use.
Types of Skin Cancer

* Basal cell carcinoma (BCC)
* Squamous cell carcinoma (SCC)
* Melanoma
Skin Cancer Risk Factors

- Previous skin cancer
- Fair skin
- Family history
- Congenital nevi
- Numerous freckles and moles
- Male
- Older
- Tendency to sunburn
- Smoker
- Tanning bed users

These photos show six skin types: I II III IV V VI

Highest Risk → Reduced Risk
Look for skin growths, such as moles, birthmarks, beauty marks or other spots that:
- Change color
- Change texture
- Have irregular borders
- Are bigger than ¼ inch (pencil eraser)
- Appear after age 21
- Increase in size or thickness
- Appear pearly, translucent, tan, brown, black or multi-colored

Be cautious about spots or sores that:
- Itch
- Hurt
- Crust over
- Scab
- Erode
- Bleed
- Don’t heal within three weeks

If you find a suspicious spot or growth, get checked right away.

- One study purported that reducing mortality rates from melanoma by 63 percent may be possible to through self-examinations of the skin

Perform self-checks regularly and have an annual clinical exam, especially if you are at high risk.
MY STORY
FARMERS

CHILDREN
YOUNG ADULTS
How much sun exposure do you need to get adequate vitamin D in the Midwest?

5 minutes

10 minutes

15 minutes
Regions at Risk

You’re here!
Sun Protection Steps

Apply sunscreen with SPF 15+
- 30 minutes before going outside
- Reapply every 1.5 to two hours and after swimming or sweating

Wear protective clothing such as tightly woven clothes and wide-brimmed hat

Take advantage of the shade or limit being outside between 10 a.m. and 4 p.m.

Sufficient vitamin D:
- Five to 30 minutes of midday sun exposure two times per week to the face, arms, legs or back for the general public (factors in skin types)
- Vitamin D-rich diet
- Oral supplement during the winter months: 600 IU
WHO SHOULD YOU ENCOURAGE PROTECTION FROM SUN?
Recipes for Renewal

1. Mix ingredients together
2. Apply to clean face
3. Leave on for 10 minutes
4. Rinse face with cool washcloth

Ingredients:
- 1 Tbsp. plain yogurt
- 1 Tbsp. honey
- 1 Tbsp. applesauce
- 1 Tbsp. wheat germ
- 1 avocado, mashed
- 1 carrot, cooked and mashed
- ½ c. heavy cream
- 1 Tbsp. ground flax
- 3 Tbsp. honey
Healthy Skin Diet = Heart-healthy Diet

- Fruits and vegetables
- Whole grains
- Low-fat dairy products
- Fish and eggs

- Legumes, nuts, olives
- Olive, canola and peanut oil
- Lower amounts of saturated and trans fats, and sweetened beverages
“Healthy Skin Diet”

Get the recommended daily allowances for vitamins and minerals from natural foods

May include a daily multivitamin/multimineral supplement
Antioxidant-rich Foods
Diets lower in fat (20 percent of calories) and rich in omega-3 oils promote healthy skin and are being studied for their role in helping prevent skin cancer.
Foods With Omega-3 Fatty Acids

* Fish
  - Pink salmon, albacore tuna, halibut, mackerel, sardines, herring, shrimp

* Ground flax or flax oil

* Walnuts, soybeans, canola oil, pumpkin seeds

* Supplements
  - Omega-3 fatty acids
  - Fish oil
    * Make sure they contain EPA and DHA
Balance Your Fat

Food high in omega-6 fatty acids

Food high in omega-3 fatty acids
Stay Hydrated

Hydration Factors
- Age and gender
- Height and weight
- Health status
- Temperature and humidity
- Altitude
- Urine output
- Diet
- Physical activity

Factors That Increase Fluid Needs
- Exercise
- Fever, vomiting, diarrhea
- Hot, humid weather
- Pregnancy or lactation (10 to 13 cups)

9 cups women
13 cups men
(total fluid recommendation)
Nutrition for the Skin

- Eat a **colorful** plate of fresh fruits and vegetables
- Know your fats. Include healthful fats from fish, nuts, seeds and olives
- Healthful foods rich in antioxidants *may* help protect the skin from some damage, but

**NOTHING** replaces sunscreen, which offers the best protection
Nourish Your Skin

* Eat a heart-healthy diet
* Use sunscreen lotions, hats and sunglasses
* Stay hydrated
* Avoid smoking
* Get regular skin checks
* Take vitamin D in winter months
For more information

www.myplate.gov
USDA website with information about food/fitness, nutrition and physical activity
Also see the Dietary Reference Intakes for individual vitamins and mineral recommendations

www.webmd.com
See skin health-related topics for skin-healthy foods

www.skincancer.org
Skin Cancer Foundation website with the latest information on skin-related topics
Thank you!

Teresa Witkoske, Wabash Co. Purdue Extension
twitkoske@purdue.edu

Susie Neher, Howard Co. Purdue Extension
sneher@purdue.edu