



Lecture 79:

Nutritional Approach To Common Dermatological Disorders

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The Three Common Disorders:

- **Acne.**
- **Excessive Sweating.**
- **Hair Loss.**

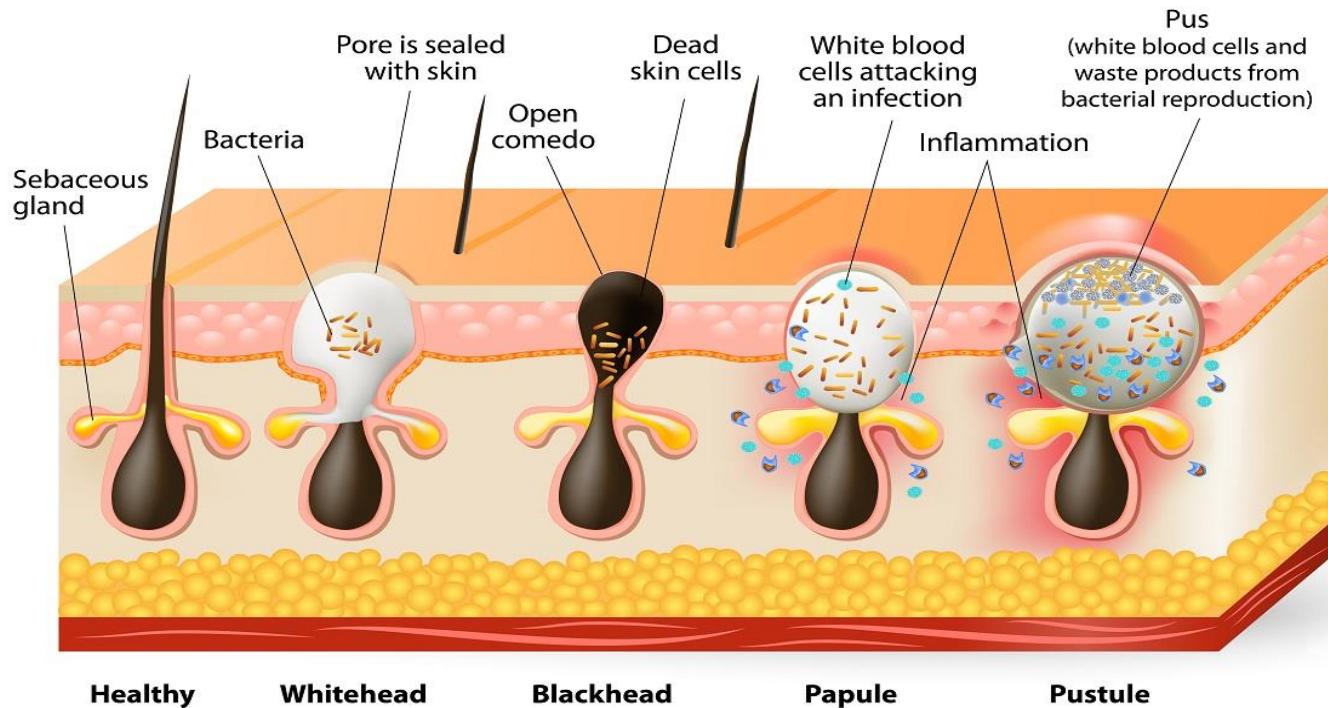
Acne:

- **Acne is a common skin condition characterized by pimples on the face, back, neck, chest, and shoulders.**



Acne: Copyright©Depositphotos.com/Ocskay Bence Mor

- It is an inflammatory condition of the sebaceous glands of the skin that causes oily skin, inflammation, whiteheads, and blackheads.



TYPES OF ACNE PIMPLES

- Acne may sometimes be referred to as “*acne vulgaris*” and “*zits*”.
- Acne occurs more commonly during adolescence among males, and usually continues into adulthood.
- However, the possibility to develop acne decreases by age. Typical onset of acne is at puberty due to an increase in testosterone level.

Potential contributing factors:

- **Genetics.**
- **Hormonal changes.**
- **Food allergies.**
- **Nutritional deficiencies, especially zinc, vitamins A, B6, B5 and B3.**
- **Poor digestion.**
- **Medications: anabolic steroids, phenytoin, lithium, corticosteroids, DHEA, isoniazid, disulfiram, and IGF- I.**

- **Environmental exposures: coal tar derivatives, halogenated hydrocarbons, machine oils, and dioxin.**
- **Emotional stress.**
- **Infection with *Propionibacterium acnes* (P. acnes)**
- **Yeast overgrowth.**
- **Oil-based cosmetics.**

Restricted Foods:

- **Saturated fats.**
- **Trans-fats containing foods: chips, cakes, pastries, doughnuts, muffins and cookies.**
- **Processed foods.**
- **Fried foods.**
- **Sugars and sweets. They worsen acne.**

- **Foods high in solanine:** potatoes, tomatoes, eggplants, and peppers. Solanine is a poisonous plant alkaloid produced by the plants from nightshade family as a natural defense mechanism against external microorganisms. Solanine exacerbates inflammation.

- **Foods high in Omega-6:** soy, sunflower oil, safflower oil, corn oil, borage oil, sesame oil, and evening primrose oil.
- **Omega-6, particularly Alpha-Linoleic Acid, is a pro-inflammatory.**



- **Inflammatory foods: red meats, eggs, and dairy products.**
- **Alcohol.**
- **Coffee.**
- **Allergenic foods.**
- **Sodas and aspartame-containing beverages.**
- **Food additives and preservatives.**
- **Vegetable shortenings.**
- **Chicken skins and wings.**

Recommended Foods:

- **Plenty of water: at least 2 liters a day.**
- **Whole grains.**
- **Legumes.**
- **Cold water fish: salmon, herring, sardines, and mackerel.**
- **Flaxseeds.**
- **Chia seeds.**
- **Hemp seeds.**
- **Fresh fruits and vegetables, except allergenic and solanine-containing ones.**

- **Fruits high in flavonoids: berries, and red grapes.**
- **Fruits and vegetables high in carotenoids: dark green and orange colored vegetables.**
- **Ginger.**
- **Pineapples.**
- **Alkaline diet.**
- **Spices high in antioxidants: sumac, turmeric, and cinnamon.**
- **Green tea.**
- **Chamomile tea.**

Recommended Supplements:

- **Vitamin B3:** 50 – 100 mg a day. It may cause hot flushes.
- **Zinc:** 50 – 100 mg a day.
- **Vitamin A:** 5000 – 10000 IU a day.

- **Chaste berry (Vitex) extract: 160 – 320 mg a day.** Vitex may reduce acne formation by balancing hormones and providing different phytonutrients including flavonoids and terpenoids.
- **French Maritime Pine Bark Extract: 200 – 300 mg a day.**

- **Grape seed extract:** 100 -200 mg a day.
- **Omega – 3 fatty acid:** 1 – 3 grams a day.
- **Chromium picolinate:** 500 – 1000 mcg a day.
It helps with adjusting blood sugar.
- **Curcumin:** 1000 – 1500 mg. It has anti-inflammatory and liver detoxifying properties.

- **Digestive enzymes:** a full spectrum product.
- **Probiotics:** a product that provides 10 to 20 billion active organisms per serving.
- **Milk thistle (with 70 – 85% silymarin):** 400 – 500 mg a day. It supports liver detoxification.
- **Saw palmetto:** 160 – 320 mg a day. It reduces acne formation by decreasing production of DHT (dihydrotestosterone).

- **Vitamin B5: 1000 – 2000 mg a day.**
- **Guggul extract (2.5% guggulsterones): 750 – 1500 mg a day.**
- **Multivitamin – Multiminerals: a high – potency product.**

Topical Implications:

- **Tea tree oil (a dilution of 5 – 10%):** apply twice a day onto pimples.
- **Azelaic acid cream 20%:** apply the cream twice a day.

Miscellaneous Suggestions:

- Liver detoxification.
- Colon cleansing.

Hyperhidrosis (Excessive Sweating):

- Hyperhidrosis is an unusual increase in sweating (excessive sweating) and could be local (focal) or generalized (diffuse).



Hyperhidrosis (excessive sweating).

Image: Copyright©Depositphotos.com /Sean Prior

- **Sweating is a normal response and common during exercise and in hot environments.**
- **However, people with hyperhidrosis sweat excessively under conditions that do not cause sweating in most people.**

- ***Focal hyperhidrosis*** occurs most commonly on the palms, soles, armpits and forehead.
- The most common cause is idiopathic (unknown cause).
- Other possible causes of focal hyperhidrosis are emotional stress, anxiety, anger, fear, pretibial myxedema (over the shins), hypertrophic osteoarthropathy (on the palms), and blue rubber bleb nevus syndrome and glomus tumor (over lesions).

- ***Gustatory sweating*** is a type of focal hyperhidrosis and occurs around the lips and mouth when having foods and beverages that are spicy or hot in temperature.
- Other possible causes of gustatory sweating are diabetic neuropathy, shingles, CNS injury or disease, and parotid gland inflammation.

- ***Generalized hyperhidrosis***
involves most of the body. The cause is unknown in most cases.



Other possible causes of generalized hyperhidrosis are:

- **hyperactive thyroid.**
- **chronic infections (tuberculosis, Malta fever, and systemic fungal infections).**
- **Diabetes.**
- **hyperactive pituitary gland.**
- **cancers (leukemia and lymphoma).**
- **anxiety.**

- **carcinoid syndrome.**
- **Gout.**
- **hypoglycemia.**
- **menopause.**
- **alcohol withdrawal syndrome.**
- **opioid withdrawal.**
- **drugs (cholinergic medications, aspirin, oral hypoglycemic agents, antidepressants, caffeine, and theophylline).**

Restricted Foods:

- **Sugar and sweets.**
- **Onions and garlic.**
- **Caffeinated beverages.**
- **Alcohol.**
- **Spicy foods.**
- **Sodas.**
- **Chili peppers.**
- **Energy drinks.**

Recommended Foods:

- **Plenty of water: at least 2 liters a day.**
- **Whole grains.**
- **Fresh fruits and vegetables.**
- **Olive oil and flaxseed oil.**
- **Apple cider vinegar.**
- **Sage tea. It contains high amounts of tannins and volatile oils which reduce sweat gland activities.**

- **Fruits high in volatile oils: guava, grapefruit, lemon, lime, orange, and tangerine.**
- **Vegetables high in volatile oils: basil, celery, coriander, parsley, peppermint, and spearmint.**
- **Cinnamon.**

Recommended Supplements:

- **Sage leaf extract:** 300 – 600 mg a day.
- **Magnesium:** 200 – 400 mg a day.
- **Schizandra extract:** 500 – 1500 mg a day.
- **Calcium:** 500 – 1000 mg a day.
- **5 – Hydroxytryptophane (5 – HTP):** 100 – 150 mg a day.
- **Vitamin B – Complex:** A high potency product.

Miscellaneous Suggestions:

- **Liver detoxification.**
- **Colon cleansing.**

Hair Loss:

- **A common concern among men and women is hair loss.**



Hair loss is a common concern among people.

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- **Normally, there are 10000 hair follicles per one centimeter square at the scalp at birth and decrease to 100-200 per one centimeter square at puberty.**
- **An adult has an average 100000 hair follicles in his head.**

- **The average rate of hair growth is 0.35 millimetre every day or 1 centimetre every month.**
- **Each hair grows for 3 to 6 years followed by entering into a resting phase, and finally falls out. Afterwards, a new hair starts growing from its follicle.**
- **Hair growth is faster in summer and slower in winter.**

- **You lose roughly 50 to 100 hairs every day.**



- A simple and practical way to confirm hair loss is “*Pull Test*”. To perform this test, grab a bunch of your hairs (50 -100) in the head and pull them gently.
- Hair loss more than 5 is considered unusual.
- The test should be done at the front, back, vertex, and both sides of the head.

Potential risk factors for hair loss:

- **Genetics and hereditary (male type baldness and female type baldness).**
- **Traction: using hair dryer.**
- **After pregnancy.**
- **Physical stress (for instance, surgery).**
- **Emotional stress (for example, severe depression).**
- **High fever.**
- **Menopause.**
- **Chemotherapy.**

- **Crash or fad diets, especially those with low in protein.**
- **Systemic diseases: liver and kidney diseases, under active or hyper active thyroid, diabetes, and systemic lupus erythematosus (SLE).**
- **Medications: heparin, warfarin, antidepressants, birth control pills, carbamazepine, lithium, indomethacin, allopurinol, metoprolol, levodopa, gentamycin, and propranolol.**

- High doses of vitamin A.
- Heavy metals toxicity: arsenic and thallium.
- Infections: syphilis and fungal infections.
- Nutritional deficiencies, especially **iron, zinc, and biotin**.
- Poor digestion.
- Radiation therapy.

Restricted Foods:

- **Saturated, hydrogenated, and Trans-fats. They may impair blood circulation.**
- **Processed and fried foods. Additives and preservatives might interrupt hair growth.**
- **Sugar and sweets.**

Recommended Foods:

- **Whole grains.**
- **Fruits and vegetables: 8 to 10 servings a day.**
- **Enough protein: fish, chicken, turkey, beef and nuts.**
- **Foods high in essential fatty acids: fish, flaxseeds, chaiseeds, hemp, and walnuts.**
- **Foods high in iron: red meats.**
- **Foods high in zinc: lentils and sunflower seeds.**

- **Foods high in biotin: Swiss chard, nuts, unpolished rice, brown rice, brewer`s yeast, egg yolk, onion, tomato, carrots and cabbage.**
- **Root vegetables: ginger, turnips, carrots, parsnips, rutabagas and onions.**
- **Coconut oil.**

Recommended Supplements:

- **Omega – 3 fatty acid:** 2 -3 grams a day.
- **Biotin:** 2000 – 3000 mcg a day.
- **Zinc:** 50 – 100 mg a day.
- **Saw Palmetto:** 320 – 480 mg a day. Saw palmetto inhibits conversion of testosterone into dihydrotestosterone (DHT), which is blamed for hair loss in men. This product is especially effective in men.

- **French Maritime Pine Bark Extract:** 100 – 200 mg a day. This product improves circulation.
- **Iron** (in iron deficiency): 50 – 300 mg.
- **Silicon (Silica):** 5 – 10 mg a day. This mineral is very important for hair growth.
- **Methylsulfoylmethane (MSM):** 2000 – 3000 mg a day. MSM provides the mineral sulfur, which supports hair growth.

- **Digestive enzymes:** a broad spectrum product.
- **Probiotics:** a product that provides 10 to 20 billion active organisms per serving.
- **Aloe Vera juice:** $\frac{1}{4}$ to $\frac{1}{2}$ cup three times a day. It promotes hair growth.
- **Multivitamins – Multiminerals.** A high potency product.

Miscellaneous Suggestions:

- **Liver detoxification.**
- **Colon cleansing.**

Homework:

- 1) Describe 4 supplements that you would recommend for hair loss and why.
- 2) Describe 4 supplements that you would recommend for acne and why.

