Unit D: Integumentary System

Program Area: Health Occupations Education

Course Title: Allied Health Sciences I  
Number: 7211

Unit Title: Integumentary System

Suggested Time for Instruction: 5 class periods (90 minute classes)  
11 class periods (55 minute classes)

Course Percent: 5%

Unit Evaluation: 100% Cognitive

Competency: 1H04. Analyze the anatomy and physiology of the skin.

Specific Objectives:

1H04.01 Explain the structure of the integumentary system.

1H04.02 Analyze the function of the integumentary system.

1H04.03 Discuss characteristics and treatment of common skin disorders.
D. **Integumentary System**

1H04.01 **Explain the structure of the integumentary system.**

A. Layers of the skin
   1. Epidermis – outer layer
      a. Stratum corneum
         i. Outermost of three epidermal layers
         ii. Contains keratin
      b. Stratum germinativum
      c. Melanocytes and melanin
      d. Papillae
   2. Dermis – inner layer
      a. Connective tissue
      b. Blood vessels
      c. Nerve endings
      d. Muscles
      e. Hair follicles
      f. Oil and sweat glands
      g. Fat cells
   3. Subcutaneous
      a. Adipose

B. Appendages
   1. Hair
      a. Cortex and medulla
      b. Root and shaft
      c. Hair follicle
      d. Papilla
      e. Arrector pili muscle
   2. Nails
      a. Matrix
      b. Keratin
   3. Glands
      a. Sudoriferous glands
         i. Sweat = 99% water
         ii. Location
         iii. Pores
         iv. Activated by heat, pain, fever and nervousness
      b. Sebaceous glands
         i. Sebum – protects and lubricates skin

1H04.02 **Analyze the functions of the integumentary system.**

A. Skin
   1. Protection
      a. Intact skin best protection
      b. Skin generally too dry for microbial growth
      c. Most skin bacteria associated with hair follicles or sweat glands
      d. Best way to prevent spread of disease is handwashing
   2. Regulation of body temperature
   3. Manufactures vitamin D
4. Sensory perception
5. Storage
6. Sun screen
7. Absorption

B. Glands
1. Sudoriferous glands (sweat glands)
   a. Perspiration is 99% water
   b. Distributed over the entire skin surface, large numbers under the arms, palms of hands, soles of feet and forehead
   c. Perspiration excreted through pores
   d. May be activated by heat, pain, fever and nervousness
   e. Underarm odor caused by bacteria mixed with sweat
   f. Ave fluid loss = 500 cc/day
2. Sebaceous glands
   a. Sebum - oil
   b. Protects and lubricates skin

1H04.03 Discuss characteristics and treatment of common skin disorders.
A. Acne
   1. Disorder of sebaceous glands
   2. Sebum plugs pores and area fills with leukocytes
   3. Also, blackheads, cysts, pimples and scarring
B. Albinism – absence of melanin
C. Alopecia – baldness
D. Athlete’s foot
   1. Contagious fungal infection
   2. Usually contracted in public baths and showers
   3. Rx – antifungal agents
E. Dermatitis
   1. Non-specific skin inflammation
   2. Rash – reaction to soap, plants, etc.
   3. Skin blotches – caused by stress
F. Herpes
   1. Genital herpes
      a. Viral blister in genital area
      b. Spread through sexual contact
      c. Periods of remission and exacerbation
      d. Rx – Acyclovir
      e. Can be passed to newborn during genital delivery
G. Skin cancer
   1. Associated with exposure to sun (UV rays)
   2. Most common type of cancer in people
   3. Melanoma
      a. Malignant
      b. Occurs in melanocytes
      c. Metastasizes to other areas quickly
      d. Brown or black irregular patch that occurs suddenly
      e. Change in existing wart or mole may indicate melanoma
      f. Rx – surgical removal of melanoma and surrounding area and chemotherapy
H. Burns
1. First degree
   1. Superficial, skin red and dry
   2. Involves only epidermis
   3. Rx – cold water
   4. Heals in one week
2. Second degree
   1. Epidermis and dermis
   2. Pain, swelling, redness and blistering
   3. Subject to infection
   4. Rx – pain medication, dry sterile dressing
   5. Healing within two weeks
3. Third degree
   1. Epidermis, dermis, and subcutaneous layers (full thickness)
   2. Loss of skin, blackened skin
   3. May be life threatening
   4. Rx – prevention of infection, fluid replacement, skin grafting
4. Rule of nines – method of measuring percent of body burned
Unit D: Integumentary System

Competency 1H04: Analyze the anatomy and physiology of the skin.

Materials/Resources


Teaching/Learning Indicators: The following letters are used to indicate specific skills/areas required in the instructional activity.

<table>
<thead>
<tr>
<th>Letter</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Reading</td>
</tr>
<tr>
<td>W</td>
<td>Writing</td>
</tr>
<tr>
<td>M</td>
<td>Math</td>
</tr>
<tr>
<td>H</td>
<td>Health professional/parent/community involvement</td>
</tr>
<tr>
<td>SS</td>
<td>Social Studies</td>
</tr>
<tr>
<td>S</td>
<td>Science</td>
</tr>
<tr>
<td>A</td>
<td>The Arts</td>
</tr>
</tbody>
</table>
Objective 1H04.01  Explain the structure of the integumentary system.

Teaching/Learning Activities

- **Basic Skills**  S, R
  Have students read appropriate section in Body Structures & Functions and participate in a teacher-led class discussion about the structure of the integumentary system. The teacher may give the students the unit terminology list (Appendix 1H04.01A) as a discussion reference.

- **Cognitive**  S, R
  As a follow-up to the discussion of the structure of the integumentary system, have students complete the “Matching Anatomy” worksheet. This assignment could earn a quiz grade, or be graded/corrected in class. (Appendix 1H04.01B)

  Have students label the diagram of the skin. (Appendix 1H04.01C)

- **Teamwork**  S
  Assign teams of two and instruct each team in making “Skin”. (Appendix 1H04.01D)
  Once the recipe is completed correctly, have students answer the questions provided about the activity.

- **Critical Thinking**  S, R, W
  Have students write a paper using the terms listed in the “Word Splash” Activity. (Appendix 1H04.01E)

- **Technology**  S
  Instruct students to visit the website www.innerbody.com/indexbody.htm. Have them write a one page comparison of the anatomy of the integumentary system as it is found on that website and as it is found in the text.

- **Special Needs**
  Each student will reach the highest level of mastery in the least restrictive environment as recommended in the student’s IEP.
Objective 1H04.02 Analyze the functions of the integumentary system.

Teaching/Learning Activities

- **Cognitive**  S, R
  Instruct students in the activity “Pairs Compare” *(Appendix 1H04.02A)*. Students ask questions to each other to find matches of the terms and functions. You may use any number of terms, or have several students playing the same terms.

  Another activity, “Guess the Fib”, may also be used after students have read or participated in a discussion on function. *(Appendix 1H04.02 B)*

- **Critical Thinking**  S, R, A
  Have students write an essay on the effect on the body of any of the following conditions and present to class:
  1. Absence of sebaceous or sudoriferous glands
  2. Absence of nerve endings
  3. Overproductive sudoriferous or sebaceous glands

- **HOSA**  S, R, W, SS
  Using the Competitive Event Guidelines for “Extemporaneous Speaking”, have the students speak on “The Most Important Function of the Integumentary System”.

- **Basic Skills**  S, R, A
  Assign students to read about the functions of the integumentary system on page 56 in the text. Have them create a bulletin board which depicts those functions.

- **Special Needs**
  Each student will reach the highest level of mastery in the least restrictive environment as recommended in the student’s IEP.
Objective 1H04.03 Identify characteristics and treatment of common skin disorders.

Teaching/Learning Activities

- **Technology S, R**
  Assign a research project to the class on one or more diseases/disorders of the integumentary system. Students are to utilize research from the internet or computerized references. Students are to present their findings using a Powerpoint or Hyperstudio Presentation. The following areas should be addressed:
  - Signs/Symptoms
  - Diagnosis
  - Prognosis
  - Treatment

  In the event presentation software is NOT available, students could use posterboard or flip chart paper to develop and present their research.

- **Basic Skills S, R**
  Students are to read the section on skin disorders in the text. Have them complete the corresponding page in the workbook.

- **HOSA/Teamwork S, R, A**
  Students work in pairs to complete a “Career Health Display,” using Competitive Event Guidelines.

- **Employability Skills S, R, H, W**
  Invite a health care professional to speak with the class about diseases and disorders of the skin. Prepare students for this visit through discussion and have them brainstorm a list of what they want to learn from the speaker. They can use their list as a source of questions for the speaker.

  If you are located near a Cancer Center, you may choose to take a field trip to that site. Another option is to invite a panel from the center to come visit the class. Have the panel discuss how their area of expertise impacts on the skin cancer patient.

- **Critical Thinking S, R, M**
  After discussing burns with the class, have them complete the “Rule of Nines” Worksheet (Appendix 1H04.03 A). Have students correct their answers with help from fellow students.

- **Special Needs**
  Each student will reach the highest level of mastery in the least restrictive environment as recommended in the student’s IEP.
### Unit D: Integumentary System

#### Terminology List

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1.</td>
<td>adipose</td>
</tr>
<tr>
<td>2.</td>
<td>arrector pili</td>
</tr>
<tr>
<td>3.</td>
<td>cortex</td>
</tr>
<tr>
<td>4.</td>
<td>dermis</td>
</tr>
<tr>
<td>5.</td>
<td>epidermis</td>
</tr>
<tr>
<td>6.</td>
<td>gland</td>
</tr>
<tr>
<td>7.</td>
<td>hair follicle</td>
</tr>
<tr>
<td>8.</td>
<td>keratin</td>
</tr>
<tr>
<td>9.</td>
<td>matrix</td>
</tr>
<tr>
<td>10.</td>
<td>medulla</td>
</tr>
<tr>
<td>11.</td>
<td>melanin</td>
</tr>
<tr>
<td>12.</td>
<td>melanocytes</td>
</tr>
<tr>
<td>13.</td>
<td>papilla</td>
</tr>
<tr>
<td>14.</td>
<td>papillae</td>
</tr>
<tr>
<td>15.</td>
<td>root</td>
</tr>
<tr>
<td>16.</td>
<td>sebaceous gland</td>
</tr>
<tr>
<td>17.</td>
<td>sebum</td>
</tr>
<tr>
<td>18.</td>
<td>shaft</td>
</tr>
<tr>
<td>19.</td>
<td>stratum corneum</td>
</tr>
<tr>
<td>20.</td>
<td>stratum germinativum</td>
</tr>
<tr>
<td>21.</td>
<td>subcutaneous</td>
</tr>
<tr>
<td>22.</td>
<td>sudoriferous gland</td>
</tr>
</tbody>
</table>

#### Diseases and Related Terminology

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1.</td>
<td>acne</td>
</tr>
<tr>
<td>2.</td>
<td>albinism</td>
</tr>
<tr>
<td>3.</td>
<td>alopecia</td>
</tr>
<tr>
<td>4.</td>
<td>athlete’s foot</td>
</tr>
<tr>
<td>5.</td>
<td>dermatitis</td>
</tr>
<tr>
<td>6.</td>
<td>first degree burn</td>
</tr>
<tr>
<td>7.</td>
<td>genital herpes (herpes)</td>
</tr>
<tr>
<td>8.</td>
<td>melanoma</td>
</tr>
<tr>
<td>9.</td>
<td>rule of nines</td>
</tr>
<tr>
<td>10.</td>
<td>second degree burn</td>
</tr>
<tr>
<td>11.</td>
<td>skin cancer</td>
</tr>
<tr>
<td>12.</td>
<td>third degree burn</td>
</tr>
</tbody>
</table>

*Appendix 1H04.01A*
# Matching Anatomy – Integumentary System

Name_______________________  Class_________________ Date_______________

Directions: Match the term in Column A with the appropriate description in Column B. Write the correct letter in the blank provided.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>____ 1. Epidermis</td>
<td>a) nonliving protein substance</td>
</tr>
<tr>
<td>____ 2. Melanin</td>
<td>b) they produce a thick, oily substance</td>
</tr>
<tr>
<td>____ 3. Subcutaneous</td>
<td>c) caused by an absence of melanin</td>
</tr>
<tr>
<td>____ 4. Shaft</td>
<td>d) outermost covering</td>
</tr>
<tr>
<td>____ 5. Keratin</td>
<td>e) cells that contain skin pigment</td>
</tr>
<tr>
<td>____ 6. Dermis</td>
<td>f) considered the true layer of skin</td>
</tr>
<tr>
<td>____ 7. Sudoriferous</td>
<td>g) adipose layer</td>
</tr>
<tr>
<td>____ 8. Hair Follicle</td>
<td>h) the part of the hair implanted in the skin</td>
</tr>
<tr>
<td>____ 9. Arrector Pili</td>
<td>i) inflammation of the skin</td>
</tr>
<tr>
<td>____10. Matrix</td>
<td>j) contains capillaries that nourish the hair follicle</td>
</tr>
<tr>
<td>____11. Dermatitis</td>
<td>k) the outer cuticle layer of the hair shaft</td>
</tr>
<tr>
<td>____12. Melanocytes</td>
<td>l) can have a black, brown or yellow tint</td>
</tr>
<tr>
<td>____13. Albinism</td>
<td>m) another term for nailbed</td>
</tr>
<tr>
<td>____14. Papillae</td>
<td>n) smooth muscle causing “goosebumps”</td>
</tr>
<tr>
<td>____15. Cortex</td>
<td>o) protrudes from skin surface</td>
</tr>
<tr>
<td>____16. Root</td>
<td>p) baldness</td>
</tr>
<tr>
<td>____17. Sebaceous glands</td>
<td>q) permanent ridges of the skin tube that holds the hair root</td>
</tr>
<tr>
<td>____18. Sebum</td>
<td>r) lubricates the skin, keeping it soft and pliable</td>
</tr>
<tr>
<td>____19. Papilla</td>
<td>s) sweat gland</td>
</tr>
<tr>
<td>____20. Alopecia</td>
<td></td>
</tr>
</tbody>
</table>

Appendix 1H04.01B
ANSWER KEY: Matching Anatomy – Integumentary System

1. d
2. l
3. g
4. o
5. a
6. f
7. t
8. r
9. n
10. m
11. i
12. e
13. c
14. q
15. k
16. h
17. b
18. s
19. j
20. p
The Skin

Locate the following structures, and color them as noted:

- hair shaft (black)
- suderiferous gland (tan)
- stratum germinativum (green)
- follicle (blue)
- stratum corneum (pink)
- papilla (red)
- subcutaneous layer (yellow)
- sebaceous gland (orange)
- hair root (purple)
- dermis (gray)
- arrector pili (brown)
- epidermis (label bracket)
Skin Recipe

1. Fill the bottom of a clear, plastic cup with Corn Puffs Cereal or yellow jello.
2. Add red jello on top of the Corn Puffs (or yellow jello). The red jello represents the dermis.
3. Using the following ingredients, place them appropriately in the red jello according to to their actual placement in the dermis.
   - M & M Peanuts represent the sebaceous glands.
   - Grapes represent the sudoriferous glands.
4. Spread a layer of whipped cream (thickness) on top to represent the stratum germinativum. Remember to check the thickness.
5. You may use cocoa to add melanin to your “skin” color.
6. Sprinkle a fine coating of crushed up Corn Flakes on top of the whipped cream to represent the stratum corneum.
7. Insert a licorice stick (hair) through the whipped cream into the dermis.

Now answer the following questions about this activity.

1. Why was yellow jello or Corn Puff Cereal used to represent the subcutaneous layer?
   ____________________________________________________________________

2. Why is the subcutaneous layer a desirable site for some injections?
   ____________________________________________________________________

3. Explain why the red jello was used to represent the dermis.
   ____________________________________________________________________

4. Which is the deepest layer of the integumentary system?
   ________________________________________________________________

5. The licorice represents the hair shaft. Explain why you pushed it through the whipped cream and jello:
   ____________________________________________________________________
   ____________________________________________________________________

6. Which glands are the most numerous? ______________________________________

7. In what layer are sebaceous glands located?__________________________What is their function?________________________
   ____________________________________________________________________

8. Using the characteristics of the epidermis, why was whipped cream a better representation than the red jello?
   ____________________________________________________________________

Appendix 004.01D
Integumentary Word Splash

Scatter following words in random pattern across the blackboard:

Epidermis
Dermis
Subcutaneous
Melanin
Arector pili
Adipose
Excretion
Protection
Matrix
Root
Shaft
Two

Have students write a newspaper article using these words. They will need to be creative in determining “what happened” – the story they are reporting on.

Students may work in teams to produce their article. Each team will present their “story” to the class.

Before the presentations, ask each student to bring four pennies to class. The teacher will need to create a container or envelope for each team.

After all the stories are told, allow students to vote by placing one penny in the container of the team who had:

- The most professional article.
- The team who was the most believable.
- The team that was the most creative.
- And the team with the overall best presentation.

Go over guidelines for “most professional paper”, “most believable team”, “most creative team”, and the team “with the best overall presentation” prior to any presentation.
Teacher Directions:

1. Using the Terminology Word List, choose 10 structures of the skin. Print each word on a separate piece of construction paper.
2. Print each function of your chosen structures on a separate sheet of construction paper.
3. Pin the “structures” or “functions” on each student.
4. Do not tell the student the term.
5. While moving around the room, students may ask each other up to three questions for clues to their term. They may not ask a direct question such as, “What term am I?”.
6. When they guess which structure or function they are, they get to sit down. When everyone is finished, or time runs out, each person will stand, state the term and the clues which helped him/her find the answer.

Note: If time allows, instruct the students to find their “pair” match and they may sit down together and give their report together.

You may have a few sets of the terms, such as 4 students labeled skin, 4 labeled sebaceous glands, etc.
Guess The Fib

Three of the statements in each set are true, one is false. The student guessing the most fibs wins!

1. The two functional layers of the epidermis are the stratum corneum and the stratum germinativum.
2. The epidermis is considered the true layer of skin.
3. Skin pigmentation cells are found in the epidermis.
4. The epidermis is your first barrier protection from disease.

1. One function of the integumentary system is temperature regulation.
2. One function is to hold muscles and bones in place.
3. Another function of the integumenary system is to provide protection.
4. The skin allows us to feel hot, cold, pain, and pleasure.

1. The dermis is your outermost layer of skin.
2. The dermis is known as the “true layer” of skin.
3. Your sensory nerves for touch, temperature, and pain are located in your dermis.
4. Pressure receptors are located deep in the dermal layer.

1. In dark hair, your cortex contains pigment granules; as you age this is pigment is replaced by air, which looks grey or white.
2. The root is the part of the hair that is inside the skin.
3. The root is embedded in an area of the epidermis called the hair follicle.
4. The arrector pili muscle is attached to each hair follicle in the opposite direction of the slope of the hair.

1. The subcutaneous layer is not a true layer of skin.
2. Intramuscular injections are often given in the subcutaneous layer.
3. Approximately one-half of the stored fat in the body is found in the subcutaneous layer.
4. The subcutaneous layer is located directly below the dermis.

1. The nail is located on the ventral side of the phalanges.
2. The surface of the nail is hard due to fusion between keratin and epidermal cells.
3. The matrix is another term for the nail bed in your hands and feet.
4. If the matrix is damaged, the nail will no longer grow.

Appendix 1H04.02B
Answer Key: Guess the Fib

1. 2
2. 2
3. 1
4. 4
5. 2
6. 2
Rule of Nines Math Activity

Answer the following math problems using the “Rule of Nines” found on page 63 of the text. Show all work.

1. What percentage of the body is burned if a 16 year old male burned his back, the back of his left leg, and his entire right arm?

2. Suzie, an active 6 year old, was burned while playing around a fireplace. Her Nightgown caught on fire and she burned both legs, her back, her left arm, and one side of her face. What percentage of body tissue was burned?

3. A 25 year old involved in a car accident burned his chest and perineal area. What percentage of his body was burned?

4. Marion was burned by exploding gas while trying to start his lawn mower. He burned both legs above the knees up through his chest, half of both arms, and the perineal area. What percentage of his body did he burn?

5. Julian burned half of his chest, a third of his back, and two-thirds of his left leg. What percentage of his body is burned?
Answers to Rule of Nines Math Activity

1. 36%
2. 47.25%
3. 19%
4. 19%
5. 21%
Unit D: Integumentary System

OVERHEAD TRANSPARENCY MASTERS
Skin = Integument = Cutaneous Membrane

7 Functions:

1. Protective covering
2. Regulates body temperature
3. Manufactures Vitamin D
4. Sensory function
5. Temporary storage of fat, glucose, water and salts
6. Screens out harmful ultraviolet radiation
7. Absorbs certain drugs
STRUCTURE OF THE SKIN

2 basic layers

Epidermis
- Outermost covering
- Epithelial cells
- Avascular

Dermis
- True skin
- Connective tissue
- Vascular

EPIDERMIS

2 (of 3) epidermal layers are:

- Stratum corneum
- Stratum germinativum
STRATUM CORNEUM
♦ Outermost layer
♦ In cells, cytoplasm replaced by KERATIN – making them waterproof.
♦ Flat and scale-like cells that flake off
♦ First line of defense against surface bacteria
♦ Thickest on palms of hands, soles of feet

STRATUM GERMINATIVUM
♦ Innermost epidermal layer
♦ Reproductive layer – cells form and push their way up, become keratinized, and replace the top layer
♦ Contains MELANOCYTES – cells that contain a pigment = MELANIN

Melanin
★ Black, brown, or has a yellow tint – depending on racial origin
★ The more melanin, the darker the skin
★ Caucasians don’t have much melanin in their melanocytes.
★ Freckles = patches of melanin
★ Albinism = no melanin
Tanning

Sunlight stimulates melanocytes to make more melanin

Tanning produced by UV rays.

STOP Prolonged exposure may lead to skin cancer!

PAPILLAE

- Ridges in stratum germinativum that arise from dermis
- Create permanent ridges in fingers, palms and soles of feet
- These “friction ridges” help with grip
- Cause “fingerprints”
DERMIS

Thicker inner layer that contains:

- Connective tissue
- Blood vessels
- Nerve endings
- Muscles
- Hair follicles
- Oil and sweat glands
- Fat cells
Nerve Receptors in Dermis

- Sensory nerves – heat, cold, touch, pain and pressure
- Touch receptors close to the surface
- Pressure receptors are deeper

Subcutaneous Layer

- Lies under the dermis (not really part of integumentary system)
- Made up of loose connective tissue
- Contains half of the body’s stored fat

Appendages of the Skin

HAIR

- Almost everywhere on the body
- Length, thickness, type and color varies

Outer layer = CORTEX
Inner layer = MEDULLA
Part under the skin = ROOT
Part outside the skin = SHAFT
FOLLICLE = pocket in epidermis, hair inside
PAPILLA = tuft of tissue in root, contains capillaries
ARRECTOR PILI MUSCLE = smooth muscle attached to follicle. How does this muscle cause goose bumps?

NAILS

- Nail is formed in the nail bed or MATRIX
- Epidermal cells fused together and fill with keratin

SWEAT GLANDS

- Perspiration is 99% water
- SUDORIFEROUS GLANDS
- Distributed over the entire skin surface
- Large numbers under the arms, palms of hands, soles of feet and forehead
- Duct extends to form a pore in the skin, perspiration excreted through the pores
- May be activated by heat, pain, fever and nervousness
- Average fluid loss is 500 ml per day

SEBACEOUS GLANDS

- Secret oil (SEBUM) that protects and lubricates the skin
Skin and Microorganisms

♦ Intact skin = best protection against pathogens, toxins and water loss

♦ Skin generally too dry for microbial growth – they do grow in moist areas

♦ Most skin bacteria associated with hair follicles or sweat glands

♦ Underarm perspiration odor caused by bacteria and perspiration

The best way to prevent the spread of disease is by hand washing.
Disorders of the Skin

ACNE
♦ Common and chronic disorder of sebaceous glands
♦ Sebum plugs pores ➔ area fills with leukocytes
♦ Also – blackheads, cysts, pimples and scarring

ATHLETE’S FOOT
♦ Contagious fungal infection
♦ Usually contracted in public baths and showers
♦ Rx – antifungal agents

DERMATITIS
♦ Non-specific inflammation of skin
♦ Can be rash – reaction to soap, plants, etc.
♦ Can be emotional – stress can cause skin blotches

GENITAL HERPES
♦ Viral
♦ Blister in genital area
♦ Spread through sexual contact
♦ Periods of remission and exacerbation
♦ Rx – Acyclovir
♦ Can be passed to newborn during vaginal delivery
SKIN CANCER
♦ Associated with exposure to sun (UV rays)
♦ Most common type of cancer in people

MALIGNANT MELANOMA
♦ Occurs in melanocytes
♦ Metastasizes to other areas quickly
♦ Appears as brown or black irregular patch that occurs suddenly
♦ A change in an existing wart or mole may indicate melanoma
♦ Rx – surgical removal of melanoma and surrounding area and chemotherapy

Terms

ALBINISM – absence of melanin
ALOPECIA – baldness
**BURNS**

♦ Caused by radiation, sun, boiling water, chemicals, fire or electricity

♦ **RULE OF NINES** – Measures percent of body burned. Body divided into 11 area, each is 9% of body surface.

**FIRST DEGREE**

♦ Superficial
♦ Skin red and dry
♦ Involves only epidermis
♦ Rx – cold water
♦ Healing within one week

**SECOND DEGREE**

♦ Epidermis and dermis
♦ Pain, swelling, redness and blistering
♦ Skin may be exposed to infection
♦ Rx – pain medication, dry sterile dressing
♦ Healing within 2 weeks

**THIRD DEGREE**

♦ Epidermis, dermis and subcutaneous layers
♦ Symptoms – loss of skin, blackened skin
♦ May be life threatening