

Skin Cancer

OBJECTIVE / RATIONALE

The overall goal of Project S.A.F.E.T.Y. is to educate adolescents about the dangers of overexposure to the sun and to promote behaviors which will reduce their lifetime risk of developing skin cancer, particularly melanoma.

TEKS 4E, 5D, 3B, 6B, 7C, 4C

TAKS ELA 1, 5
Science 1, 2, 3

National Science Education Standards A9-12; C9-12; F9-12; G9-12

National Health Care Skills Standards .01, .02, .03, .04, .05, .06, .07

KEY POINTS

I. Review the integument

A. Functions

1. protection
2. excretion
3. body temperature regulation
4. sensation
5. vitamin D synthesis
6. blood reservoir

B. Regions

1. epidermis- outer epithelial layer
 - stratum basale (deep regenerating layer)
 - stratum spinosum ("spiny" cells)
 - stratum granulosum ("grainy" cells)
 - stratum lucidum (clear layer only in thick skin)
 - stratum corneum (thick outer layer)
2. b. dermis- middle connective tissue layer
 - papillary region (loose connective tissue below epidermis)
 - reticular region (dense, irregular connective tissue below papillary region)
3. c. hypodermis- connective tissue/fat layer that anchors skin to organs

II. Neoplasms of the Integumentary System

A. basal cell carcinoma

- most common
- least malignant
- cause: cells of the stratum basale no longer form keratin
- symptoms: shiny, raised areas with pearly, beaded edge
- treatment: surgical excision

B. squamos cell carcinoma

- cause: cells of the stratum spinosum grow rapidly and metasize

- symptoms: scaly, reddened papule
- treatment: surgical excision, radiation

C. malignant melanoma

- cause: melanocytes (pigment-producing cells) become cancerous
- symptoms: brown to black patch that spreads quickly
- treatment: surgical excision, radiation, chemotherapy

IV. Summary

- A. may be induced by sun exposure
- B. prevented by sun awareness and proper precautions

ACTIVITIES

I. Complete the Project Safety- Sun Awareness for Educating Texas Youth, The University of Texas M.D. Anderson Cancer Center (Houston)

<http://safety@www.mdacc.tcm.edu>

MATERIALS / RESOURCES

Project Safety packet (video, slides, and activity book)

<http://safety@www.mdacc.tcm.edu>

HOSA Event Guidelines

ASSESSMENT

Project Safety packet

ACCOMODATIONS

For reinforcement, the student will create a pamphlet to increase awareness of the causes of skin cancer.

For enrichment, the student will develop a community awareness project on sun awareness according to HOSA Guidelines.

REFLECTIONS
