

MODULE I: ANATOMY & PHYSIOLOGY: UNDERSTANDING SKIN AND ITS RELATIONSHIP TO WOUND HEALING

Assessment – An evaluation

Avascular – lacking blood supply; synonym are dead, devitalized, necrotic, and non-viable.

Candidiasis – infection of the skin or mucous membrane with any species of Candida; Skin appears beefy red with satellite lesions, may have burning and itching.

Cellulitis – diffuse acute inflammation and infection of the skin and subcutaneous tissues. It signifies a spreading infection.

Collagen – major structural protein found in the dermis and is secreted by dermal cells; main protein of connective tissue, makes up to 25%-35% of the whole body's protein content.

Contact dermatitis – an immunologic response to an allergen; Clinical manifestations begins with erythema, pruritis, followed by skin lesions.

Dermal – related to skin or dermis; synonym is "integumentary".

Dermal-Epidermal Junction – the area that separates the epidermis from the dermis; also referred to as the basement membrane zone.

Dermatosis – a disease of the skin.

Dermal Wound – loss of skin integrity, which may be superficial or deep.

Dermis – inner layer of the skin that lies under the epidermis; contains blood vessels, lymph vessels, hair follicles, glands and nerves.

Elastin – protein found in the dermis; provides the skin's elastic recoil.

Epidermis – outermost layer of the skin.

Epithelialization – regeneration of the epidermis across a wound surface.

Fibroblast – a cell that is responsible for building collagen and granulation tissue.

Fibronectin – a group of proteins found in blood plasma and extracellular matrix.

Friction – the force of two surfaces moving across one another, such as the mechanical force exerted when skin is dragged across a coarse surface.

Glycoprotein – a compound consisting of a carbohydrate and protein

Glycosaminoglycan – a compound consisting of carbohydrate, protein, nitrogen and polysaccharide.

Granulation tissue – pink to red, moist tissue that contains new blood vessels, collagen, fibroblasts, and inflammatory cells that fills an open, previously deep wound when it begins to heal.

Hemostasis – state of equilibrium of the internal environment; initiates the healing process.

Hypodermis – superficial fascia, forms a subcutaneous layer beneath the dermis.

Incontinence Associated dermatitis (IAD) - inflammation of the skin that occurs when urine or stool comes into contact with perineal or peri-genital skin.

Langerhans cells – a cluster of cells located in the epidermis that functions as an antigen-presenting cell which binds antigen entering through the skin and transports it to the lymph nodes.

Laminin – a type of glycoprotein

Lichenification – chronic thickening of the dermis.

Macrophage – a white cell that is vital to the inflammatory phase of healing.

Melanocyte – found in the epidermis; produce melanin that gives skin its color.

Papillary Dermis – lies below the dermal-epidermal junction/ basement membrane zone and forms interdigitating structures.

Pruritus – a medical term for itchy skin—unpleasant skin sensation with the immediate desire to scratch.

Rete ridges or pegs – fingerlike projections in the epidermis that interlock with upward projections of papillary dermis; helps anchor the epidermis to the dermis.

Reticular Dermis – below the papillary dermis and forms the base of the dermis.

Sebum – a lipid-rich, oily substance secreted by the sebaceous glands that provides an acidic coating to the skin.

Shear – the mechanical force that is parallel rather than perpendicular to the surface area of the body; trauma caused by tissue layers sliding against each other, results in disruption or angulation of blood vessels.

Skin pH – the degree of acidity or alkalinity of the skin; a range of 4 to 6.5 is considered acidic with a mean pH of 5.5 for skin.

Skin Tear – result of friction alone or shearing and friction forces that separate the epidermis from the dermis or that separate both the epidermis and dermis from underlying structures.

Stratum Basale – also referred to as the stratum germinativum; the inner most or deepest layer of the epidermal layer.

Stratum Corneum – the outermost horny layer of the epidermis

Stratum Granulosum – one to five cells thick; referred to as the granular layer beneath the stratum lucidum.

Stratum Lucidum – translucent layer of the epidermis.

Stratum Spinosum – the prickle cell layer so called because of its prominent intercellular attachments.

Tactile receptor or corpuscle – sensory end organ that responds to touch; located in the papillary dermis.

TEWL (trans-epidermal water loss) – the measurement of the quantity of water that passes from inside the body through the epidermal layer to the surrounding atmosphere via diffusion and evaporation processes.

Xerosis – A dermatosis that includes dry scaly skin with or without erythema and pruritis

Sources:

Taber's Cyclopedic Medical Dictionary

Acute & Chronic Wounds: Bryant and Nix, 3rd edition

WOCN Clinical Practice guidelines: Volume 2

Wound Care Essentials: Practice Principles, Baranoski, Ayello, 2nd edition