

American Board of Dermatology Content Outline

The American Board of Dermatology (ABD) has produced this content outline to help dermatology residents understand the scope of information covered in the ABD certifying examination. This list is not exhaustive and content for examination questions will also come from new and evolving concepts. Hopefully, this will help guide preparation and alleviate some test preparation anxiety.

I) Basic Science

- A) Gross Anatomy
- B) Tumor biology and pathogenesis
- C) Photobiology
- D) Biochemistry
- E) Cell biology
 - 1) Apoptosis
 - 2) Cell cycle
- F) Embryology
- G) Epidemiology
- H) Genetics
 - 1) Basic principles of genetics
 - 2) Genetic basis of cutaneous diseases
- I) Immunology
 - 1) Autoantibodies (autoimmune connective tissue) diseases
 - 2) Autoantibodies (vesiculobullous disorders)
- J) Microbiology
- K) Bacteriology
 - 1) Fungi
 - 2) Parasites
 - 3) Protozoa
 - 4) Viruses
- L) Molecular biology
- M) Wound healing
- N) Pharmacology
- O) Skin barrier, percutaneous drug delivery, and pharmacokinetics
- P) Physiology
 - 1) Biology of the basement membrane zone
 - 2) Structure and function of eccrine, apocrine, apoeccrine, and sebaceous glands
 - 3) Biology of keratinocytes
 - 4) Biology of melanocytes
 - 5) Biology of the extracellular matrix
 - 6) Vascular biology
 - 7) Biology of hair and nails
 - 8) Biology of mast cells and eosinophils
 - 9) Inflammatory mediators
- Q) Research Design

II) General/Medical Dermatology & Therapy

- A) General Principles
 - 1) Normal growth and development

- 2) Public health
- 3) Statistics
- 4) Physical Examination and diagnosis
- B) Pruritus
 - 1) Mediators of pruritus
 - 2) Pruritus and dysesthesia
 - 3) Psychocutaneous diseases
- C) Papulosquamous dermatoses
 - 1) Psoriasis
 - 2) Pityriasis rubra pilaris
 - 3) Lichen planus and lichenoid dermatoses
 - 4) Other papulosquamous disorders, e.g. pityriasis rosea, secondary syphilis
- D) Eczematous dermatoses
 - 1) Atopic dermatitis
 - 2) Allergic contact dermatitis
 - 3) Stasis dermatitis
 - 4) Other eczematous conditions, e.g. irritant contact dermatitis
- E) Occupational Dermatoses
- F) Urticarias, erythemas, and purpura
 - 1) Urticaria and angioedema
 - 2) Erythemas
 - 3) Erythema multiforme and Stevens-Johnson syndrome
 - 4) Purpura and coagulation
 - 5) Leukocytoclastic vasculitis
 - 6) Other microvascular occlusion syndromes
 - 7) Eosinophilic dermatoses
 - 8) Neutrophilic dermatoses
- G) Adverse Drug Eruptions
- H) Dermatoses of Pregnancy
- I) Vesiculobullous disorders
 - 1) Pemphigus (foliaceus, vulgaris, paraneoplastic, etc.)
 - 2) Pemphigoid group
 - 3) Dermatitis herpetiformis and linear IgA bullous dermatosis
 - 4) Epidermolysis bullosa
 - 5) Toxic epidermal necrolysis
 - 6) Other vesiculobullous diseases
- J) Adnexal disorders
 - 1) Acne vulgaris
 - 2) Rosacea and related disorders
 - 3) Folliculitis and the follicular occlusion tetrad
 - 4) Diseases of the eccrine sweat glands
 - 5) Adnexal tumors
- K) Rheumatologic disorders
 - 1) Lupus erythematosus
 - 2) Dermatomyositis
 - 3) Systemic sclerosis (scleroderma) and CREST syndrome
 - 4) Other rheumatologic diseases
- L) Metabolic and systemic disorders
 - 1) Mucinoses
 - 2) Amyloidosis
 - 3) Deposition disorders

- 4) Porphyria
- 5) Calcifying and ossifying disorders of the skin
- 6) Nutritional disorders
- M) Dermatologic signs of systemic disease
 - 1) Endocrine
 - 2) Metabolic Syndrome
 - 3) Rheumatologic
 - 4) Hyperlipidemias
 - 5) Cutaneous sarcoidosis
- N) Genodermatoses
 - 1) Ichthyoses, erythrokeratodermas, and related disorders
 - 2) Keratodermas
 - 3) Darier's disease and Hailey-Hailey disease
 - 4) Primary immunodeficiencies
 - 5) Neurofibromatosis and tuberous sclerosis
 - 6) Mosaicism and linear lesions
 - 7) Enzyme deficiency diseases
- O) Pigmentary disorders
 - 1) Vitiligo and other disorders of hypopigmentation
 - 2) Disorders of hyperpigmentation
 - a) Diffuse and circumscribed hypermelanosis
 - b) Linear and reticulated hyperpigmentation
 - 3) Exogenous disorders
- P) Disorders of hair, nails, and mucous membranes
 - 1) Alopecias
 - a) Scarring
 - b) Non-scarring
 - 2) Disorders of hair growth
 - 3) Hypertrichosis and hirsutism
 - 4) Nail disorders
 - 5) Oral disease
 - 6) Anogenital (non-venereal) diseases
- Q) Infections, infestations, and bites
 - 1) Bacterial diseases
 - 2) Mycobacterial infections
 - 3) Rickettsial diseases
 - 4) Fungal diseases
 - a) Superficial
 - b) Deep
 - 5) Cutaneous manifestations of HIV and HIV-related disorders
 - 6) Viral diseases
 - 7) Sexually transmitted diseases
 - 8) Protozoa and worms
 - 9) Infestations
 - a) Scabies
 - b) Lice
 - 10) Bites and stings
- R) Disorders caused by physical and chemical agents
 - 1) Ultraviolet light and vitamin D issues
 - 2) Photodermatoses
 - 3) Environmental and sports-related skin diseases

- 4) Toxins
- 5) Cold
 - a) Cryoglobulins
 - b) Chilblains (Pernio)
- S) Disorders of Langerhans Cells and macrophages
 - 1) Histiocytes
 - 2) Xanthomas
 - 3) Noninfectious granulomas
 - 4) Foreign body reactions
- T) Atrophies and disorders of dermal connective tissues
 - 1) Perforating diseases
 - 2) Morphea and lichen sclerosus
 - 3) Inherited disorders of connective tissue
 - a) Ehlers-Danlos syndrome
 - b) Pseudoxanthoma elasticum
 - c) Cutis laxa
 - 4) Scars and Keloids
 - 5) Atrophies of connective tissue
 - 6) Disorders of cartilage
 - a) Chondrodermatitis nodularis helices
 - b) Relapsing polychondritis
- U) Disorders of subcutaneous fat
 - 1) Panniculitis
 - a) Septal
 - b) Lobular
 - 2) Lipodystrophies
- V) Ulcerations
 - 1) Venous ulcerations
 - 2) Arterial ulcerations
 - 3) Pyoderma gangrenosum
 - 4) Other ulcerations
- W) Neoplasms of the skin
 - 1) Actinic keratosis, basal cell carcinoma, and squamous cell carcinoma
 - 2) Benign epithelial tumors and proliferations
 - 3) Cysts
 - 4) Adnexal neoplasms
 - 5) Benign melanocytic neoplasms
 - 6) Melanoma
 - 7) Neural and neuroendocrine neoplasms (other than neurofibromatosis)
 - 8) Fibrous and fibrohistiocytic proliferations of the skin and tendons
 - 9) Muscle, adipose, and cartilage neoplasms
 - 10) Mastocytosis
 - 11) Cutaneous lymphomas
 - 12) Other lymphoproliferative and myeloproliferative diseases
 - 13) Cutaneous metastases
 - 14) Vascular disorders (See IV G)
- X) Psychocutaneous disorders
 - 1) Signs of drug abuse
 - 2) Child abuse
 - 3) Monosymptomatic delusions of hypochondriasis (delusions of parasitosis)
 - 4) Compliance issues

Y) Special Medical Treatment Considerations

- 1) Medical treatment
 - a) Patient recommendations (avoidance of allergens, etc.)
 - b) Specific treatments
 - Glucocorticoids
 - Retinoids
 - Antimicrobial agents
 - Immunomodulators
 - Biologic Agents
 - c) Drug interactions
 - d) Alternative medicine
 - e) Adverse drug reactions
 - f) Pregnancy-related concerns
- 2) Ultraviolet and radiation therapy
 - a) Ultraviolet light therapy
 - b) Photodynamic therapy
 - c) Radiation therapy
- 3) Cosmetic therapy
- 4) Outcomes
- 5) Observation/without intervention

III) Surgical Dermatology

- A) Principles of operative treatment
 - 1) Surgical preparation, facilities, and monitoring
 - 2) Instrumentation
 - 3) Closure materials
 - 4) Patient evaluation
 - 5) Universal precautions
 - 6) Anesthesia
 - a) Tumescent anesthesia
 - b) Nerve blockade
 - 7) Wound care and healing
 - 8) Emergent care
 - 9) Complications
 - a) Management of complications (pre and post)
 - b) Prognosis
- B) Standard surgical techniques
 - 1) Skin biopsy
 - 2) Excision
 - 3) Simple repairs
 - 4) Suturing techniques
 - 5) Electrosurgery and epilation
 - 6) Cryotherapy
 - 7) Mohs surgery
 - 8) Nail surgery
- C) Surgical Repair/reconstruction
 - 1) Intermediate and complex closures
 - 2) Flaps
 - a) Advancement
 - b) Rotation
 - c) Transposition

- d) Pedicle
- 3) Skin grafts
 - a) Full thickness
 - b) Split thickness
 - c) Composite
- 4) Second intention healing
- 5) Scar revision
 - a) Surgical
 - b) Resurfacing
- D) Dermabrasion
- E) Chemical peels
- F) Laser and Light Devices
 - 1) Basic laser physics
 - 2) Alexandrite laser
 - 3) Argon Laser
 - 4) Carbon dioxide laser
 - 5) Pulsed dye lasers
 - 6) Other lasers
 - 7) Other light sources (IPL, radiofrequency, etc.)
- G) Phlebology
- H) Soft-tissue augmentation and fillers
 - 1) Collagen
 - 2) Autologous fat
 - 3) Evolving agents
- I) Botulinum toxin
- J) Hair restoration surgery
- K) Suction lipectomy
- L) Postoperative cosmetics

IV) Pediatric Dermatology

- A) Diaper rash
- B) Neonatal conditions
 - 1) Blistering diseases of the newborn
 - 2) Transient neonatal dermatoses
 - 3) Harlequin color change
 - 4) Neonatal desquamation
 - 5) Neonatal pigmentary changes
 - 6) Miliaria
 - 7) Milia, Bohn's, and Epstein's pearls
 - 8) Erythema toxicum neonatorum
 - 9) Transient pustular melanosis
- C) Premature aging syndromes and poikilodermas
- D) Ectodermal dysplasias
- E) Epidermal nevi and hamartomas
 - 1) Sebaceous
 - 2) Keratinocytic
 - 3) Epidermolytic hyperkeratosis type
 - 4) ILVEN
 - 5) Follicular
 - 6) Porokeratotic eccrine ostial and dermal duct
 - 7) Epidermal nevus syndrome

- 8) CHILD syndrome
- 9) Proteus syndrome
- 10) Phakomatosis pigmentokeratolica
- F) Developmental anomalies
 - 1) Accessory tragi
 - 2) Congenital rests of the neck (wattles)
 - 3) Branchial cleft cysts, sinuses, and fistulae
 - 4) Midline cervical cleft
 - 5) Bronchogenic cysts and sinuses
 - 6) Skin dimples
 - 7) Nasal glioma
 - 8) Lip pits
 - 9) Supernumerary nipples
 - 10) Developmental anomalies of the umbilicus
 - 11) Median raphe cysts of the penis
 - 12) Cutaneous signs of occult spinal dysraphism
 - 13) Aplasia cutis congenita
 - 14) Amniotic band syndrome
 - 15) Congenital abnormalities – dermatoglyphics
 - 16) Hair collar sign
- G) Vascular disorders
 - 1) Infantile hemangiomas
 - 2) Vascular malformations
 - a) Capillary malformations
 - b) Venous and mixed malformations
 - Klippel-Trenaunay syndrome
 - Sturge-Weber syndrome
 - Cobb syndrome
 - Gorham-Stout syndrome
 - Maffucci syndrome
 - 3) Lymphatic malformations
 - 4) Arteriovenous malformations

V) Office management

- A) Coding
- B) Billing
- C) Managed care concepts
- D) Government regulation
- E) OSHA regulations
- F) CLIA regulations
- G) Laboratory management issues

VI) Ethics and Professionalism

- A) Patient/Doctor Relationship
- B) Physician relationship with Pharmaceutical Industry
- C) Confidentiality
- D) Conflicts of Interest
- E) Continued Self-assessment and Quality Improvement.
- F) Informed consent

VII) Laboratory Medicine

A) Dermatopathology

- 1) Light microscopy (H and E)
 - a) Inflammatory disorders
 - b) Tumors
- 2) Electron microscopy
- 3) Histochemistry (special stains)
- 4) Darkfield, phase microscopy, polariscopy
- 5) Immunopathology
 - a) Immunofluorescent (IF) testing – direct and indirect IF
- 6) Immunoperoxidase studies
- 7) Immunohistochemistry

B) Blood tests

- 1) Hematologic values including sedimentation rate, coagulation studies, CBC, etc.
- 2) Blood chemistries
- 3) Serologic tests
- 4) Enzyme levels
- 5) Hormone levels, other tests of endocrine function
- 6) Electrophoresis

C) Urine tests

- 1) Urinalysis
- 2) Urine chemistries
- 3) Hormone levels

D) Stool examination

- 1) Ova and parasites
- 2) Stool chemistries

E) Bedside tests of hair, nails, skin

F) Microbiologic tests

- 1) Mycology – KOH preparation
- 2) Bacteriology – Gram stain and dark-field examination
- 3) Virology – Interpretation of results
- 4) Parasitology (gross and microscopic identification of helminths, arthropods, other insects)
- 5) Protozoology, gross and microscopic

G) Monoclonal antibody studies

H) HLA studies

I) Immunoelectrophoresis

J) Cytology (Tzanck smear)

K) Patch testing

- 1) Standard trays
- 2) Special trays
- 3) “Use” testing