Endocrinology, Diabetes, and Metabolism Blueprint

Certification Examination (CERT)

Purpose of the exam

The exam is designed to evaluate the knowledge, diagnostic reasoning, and clinical judgment skills expected of the certified endocrinologist in the broad domain of the discipline. The ability to make appropriate diagnostic and management decisions that have important consequences for patients will be assessed. The exam may require recognition of common as well as rare clinical problems for which patients may consult a certified endocrinologist.

Exam content

Exam content is determined by a pre-established blueprint, or table of specifications. The blueprint is developed by ABIM and is reviewed annually and updated as needed for currency. Trainees, training program directors, and certified practitioners in the discipline are surveyed periodically to provide feedback and inform the blueprinting process.

The primary medical content categories of the blueprint are shown below, with the percentage assigned to each for a typical exam:

Medical Content Category	% of Exam
Adrenal Disorders	10%
Pituitary Disorders	10%
Lipids, Obesity, and Nutrition	12%
Female Reproduction	7%
Male Reproduction	7%
Diabetes Mellitus and Hypoglycemia	24%
Calcium and Bone Disorders	15%
Thyroid Disorders	15%
	100%

Exam questions in the content areas above may also address clinical topics in internal medicine, including some general pediatrics with an emphasis on adolescent medicine, that are important to the practice of endocrinology.

ABIM is committed to working toward health equity and believes that board-certified physicians should have an understanding of health care disparities. Therefore, health equity content that is clinically important to each discipline will be included in assessments, and the use of gender, race, and ethnicity identifiers will be re-evaluated.

Exam format

The exam is composed of up to 240 single-best-answer multiple-choice questions, of which approximately 40 are new questions that do not count in the examinee's score. Most questions describe patient scenarios and ask about the work done (that is, tasks performed) by physicians in the course of practice:

- Making a diagnosis
- Ordering and interpreting results of tests
- Recommending treatment or other patient care
- Assessing risk, determining prognosis, and applying principles from epidemiologic studies
- Understanding the underlying pathophysiology of disease and basic science knowledge applicable to patient care

Clinical information presented may include various media illustrating relevant findings, such as diagnostic imaging studies, continuous glucose monitoring tracings, radiographic studies, or patient photographs. The certification exam may include the following adrenal imaging studies and procedures:

- Differentiate among imaging techniques for adrenal disease, including computed tomography, magnetic resonance imaging, meta-iodobenzylguanidine scintigraphy, indium-labeled pentetreotide scintigraphy, fludrodeoxyglucose positron emission tomography, and 68-Ga-DOTATATE positron emission tomography.
- Interpret imaging phenotype to predict the histologic type of adrenal disease—including: benign adenoma, pheochromocytoma, adrenocortical carcinoma, and adrenal metastases.
- Identify indications for computed tomography–guided adrenal fine-needle aspiration biopsy.
- Identify indications for adrenal venous sampling for aldosterone.
- Interpret results from adrenal venous sampling (with or without cosyntropin stimulation).

The following pituitary imaging studies and procedures may be included on the exam:

- Interpret typical imaging phenotypes on magnetic resonance imaging for primary pituitary tumors, pituitary cysts, pituitary hyperplasia, metastatic lesions to the pituitary, pituitary stalk lesions, and hypothalamic masses.
- Identify indications for inferior petrosal sinus sampling for corticotropin.
- Interpret results from inferior petrosal sinus sampling.

Learn more information on how exams are developed. A tutorial including examples of ABIM exam question format can be found at http://www.abim.org/certification/exam-information/endocrinology-diabetes-metabolism/exam-tutorial.aspx.

The blueprint can be expanded for additional detail as shown below. Each of the medical content categories is listed there, and below each major category are the content subsections and specific topics that *may* appear in the exam. Please note: actual exam content may vary.

Adrenal Disorders	**10%** of Exam
Glucocorticoids	4%
Cushing syndrome	
Management of glucocorticoid therapy	
Adrenal insufficiency	
Primary	
Secondary	
Mineralocorticoids	2%
Hyperaldosteronism	
Primary	
Pseudo	
Secondary	
Hypoaldosteronism	
Congenital adrenal hyperplasia	<2%
Adrenal incidentaloma	<2%
Pheochromocytoma and paraganglioma	<2%
Adrenal cancer	<2%

Pituitary Disorders	**10%** of Exam
Prolactin	<2%
Hyperprolactinemia	
Prolactinomas	
Normoprolactinemic galactorrhea	
Growth hormone	2%
Acromegaly	
Growth hormone deficiency	
Childhood onset	
Adult onset	
Thyroid-stimulating hormone (TSH)	<2%
TSH-secreting adenoma	
Hyperplasia secondary to longstanding primary hypothyroidism	
TSH deficiency	
Gonadotropins	<2%
Gonadotroph pituitary tumors	
Hypogonadotropic hypogonadism	
Congenital	
Acquired	
Gonadotropins (LH and FSH)	
Nonsecreting pituitary tumors	<2%
Adrenocorticotropic hormone (ACTH)	<2%
Cushing disease	
ACTH deficiency	
Hypopituitarism	<2%
Empty sella syndrome	<2%
Antidiuretic hormone (ADH)	<2%
Arginine vasopressin deficiency	
Arginine vasopressin resistance	
Psychogenic polydipsia	
Syndrome of inappropriate antidiuretic hormone secretion (SIADH)	
Craniopharyngioma	<2%
Pituitary incidentaloma	<2%

Lipids, Obesity, and Nutrition	**12%** of Exam

Hypercholesterolemia	<2%
Primary disorders	
Familial hypercholesterolemia	
Secondary disorders	
Hypertriglyceridemia	<2%
Elevated triglycerides and low-density lipoprotein cholesterol	2.5%
Primary disorders	
Secondary disorders	
Hypolipidemia	<2%
Treatment of lipid disorders	2.5%
Obesity and nutrition	3%
Genetic disorders	
Secondary disorders	
Comorbidities	
Treatment of obesity	
Diet	
Drugs	
Lifestyle	
Surgery and endoscopic treatments	
General nutrition	<2%
Vitamin deficiency	
Enteral nutrition	
Strategies for counseling	<2%

Female Reproduction	**7%** of Exam

Amenorrhea	<2%
Primary	
Androgen insensitivity syndrome	
Turner syndrome	
Primary ovarian insufficiency	
Secondary	
Hypogonadotropic hypogonadism (hypothalamic)	
Hyperprolactinemia	
Pregnancy	

Hyperandrogenism	<2%
Polycystic ovary syndrome	
Non-polycystic ovary syndromes	
Nonclassic congenital adrenal hyperplasia	
Abuse of anabolic steroids	
Premenstrual syndrome and premenstrual dysphoric disorder	<2%
Endocrine causes of infertility	<2%
Hormonal contraception	<2%
Perimenopause and menopause	<2%
Sexual differentiation	<2%
Gender dysphoria	
Female-to-male transition management	

Male Reproduction — **7%** of Exam

Hypogonadism	2%
Primary hypogonadism	
Klinefelter syndrome	
Hemochromatosis	
Mumps orchitis	
Testicular torsion and trauma	
Drug-induced (alkylating chemotherapy)	
Secondary hypogonadism	
Pituitary tumors	
Kallmann syndrome	
Acute and chronic illness	
Infiltrative disorders	
Prader-Willi syndrome	
Drug-induced (opioids, glucocorticoids)	
Hyperprolactinemia	
Genetic disorders of androgen production and action	
Infertility	<2%
Cryptorchidism	
Klinefelter syndrome	
Cystic fibrosis and cystic fibrosis gene mutations	
Drug-induced infertility	
Obstructive azoospermia	
Idiopathic oligozoospermia	
Y-chromosome microdeletions	

Gynecomastia	<2%
Erectile dysfunction	<2%
Testosterone in aging men	<2%
Abuse of androgens and anabolic steroids	<2%
Sexual differentiation	<2%
Gender dysphoria	
Male-to-female transition management	
Ejaculatory dysfunctions	<2%

Diabetes Mellitus and Hypoglycemia	**24%** of Exam

Prediabetes	2%
Monitoring glycemic control	2%
Type 1 diabetes mellitus	3.5%
Ketoacidosis	
Latent autoimmune diabetes of the adult (LADA)	
Hyperglycemia in type 1 diabetes	
Hypoglycemia in type 1 diabetes	
Pathogenesis of type 1 diabetes	
Type 2 diabetes mellitus	4.5%
Hyperosmolar nonketotic state	
Hyperglycemia in type 2 diabetes	
Hypoglycemia in type 2 diabetes	
Pathogenesis of type 2 diabetes	
Additional types of diabetes	<2%
Recognition and management of associated conditions	<2%
Hypertension	
Dyslipidemia	
Obesity	
Sleep apnea	
Fatty liver	
Thyroid disease	
Polycystic ovary syndrome	
Eating disorders	
Pregnancy	<2%
Gestational diabetes	
Pre-gestational diabetes	

Diabetes mellitus complications	4.5%
Microvascular	
Macular edema	
Mononeuropathies	
Macrovascular	
Diabetic foot	
Skin disorders	
Pancreas transplantation	<2%
Hypoglycemia independent of diabetes	2%
Insulinoma	
Noninsulinoma	
Inpatient diabetes management	<2%

Calcium and Bone Disorders — **15%** of Exam

Hypercalcemia	3%
Parathyroid hormone-mediated	
Primary hyperparathyroidism	
Non-parathyroid hormone-mediated	
Hypocalcemia	2.5%
Hypoparathyroidism	
Surgical	
Autoimmune	
Calcium-sensing receptor gene mutations	
hypercalciuric hypocalcemia	
Parathyroid hormone (PTH) resistance	
Hypomagnesemia	
Hyperphosphatemia	
Hypocalcemia (general)	
Osteoporosis	4%
In female	
In male	
Post-transplant and glucocorticoid-induced	
Renal, hepatic, and gastrointestinal disease-related	

Paget disease of bone	<2%
Epidemiology and pathogenesis	
Biochemical abnormalities	
Radiographic abnormalities	
Therapy	
Hypovitaminosis D	<2%
Dietary deficiency	
Limited sun exposure	
Malabsorption	
Liver failure	
Renal insufficiency	
Vitamin D dependent rickets type 1 and II	
Vitamin D resistant rickets	
Drug-induced	
Bone disease	
Nonskeletal disorders	
Osteomalacia and rickets	<2%
Chronic hypophosphatemia	
Inhibitors of mineralization	
Renal osteodystrophy	<2%
Nephrolithiasis	<2%
Osteogenesis imperfecta and bone dysplasias	<2%
Fibrous dysplasia and other dysplastic syndromes	<2%
Calciphylaxis	<2%
Hypophosphatemia	<2%
Renal losses	
Gastrointestinal malabsorption	
Internal redistribution	
Rare bone diseases	<2%
Hypophosphatasia	
Fibrodysplasia ossificans progressiva	
Osteopetrosis	

Thyroid Disorders	**15%** of Exam

Hyperthyroidism	3.5%
Graves disease	
Clinical manifestations	

Drug-induced hyperthyroidism	
Ophthalmopathy, dermopathy, and acropachy	
Toxic adenoma and multinodular goiter	
Inappropriate thyroid-stimulating hormone syndromes	
Thyrotoxicosis with low radioactive iodine uptake	
Thyroiditis	
Factitious, accidental, and iatrogenic thyrotoxicosis	
Iodine-induced and other drug-induced	
Struma ovarii	
Complicated thyrotoxicosis	
Periodic paralysis	
Thyroid storm	
Subclinical hyperthyroidism	
Hypothyroidism	2.5%
Primary	
Congenital	
Acquired	
Secondary	
Subclinical hypothyroidism	
Complicated hypothyroidism	
TSH resistance	
Therapy	
Nontoxic solitary nodules and multinodular goiter	3%
Thyroid cancer	3.5%
Well-differentiated epithelial cancers	
Hürthle cell cancer	
Anaplastic cancer	
Lymphoma	
Medullary cancer	
Thyroid test abnormalities without thyroid disease	<2%
Euthyroid hypothyroxinemia	
Euthyroid hyperthyroxinemia	
Effect of drugs on thyroid function tests	
Nonthyroidal illness (euthyroid sick syndrome)	
Thyroid hormone antibodies	
Antibody interferences with TSH measurement	
Thyroid diseases in pregnancy	<2%