

## Adverse Effects on Male Reproduction

### Objectives

- Identify changes in male reproductive function that occur with age
- Summarize consequences of decreased serum testosterone concentrations in aging men
- Review testosterone therapy to reverse reproductive effects of aging and its benefits and risks
- Discuss genetics and lifestyle habits that can affect male reproductive function
- Describe the interplay between chronic disease and how it can alter reproductive function

### Content Outline

1. Changes in Male Reproductive Function with Age
  - A. Spermatogenesis and semen parameters
  - B. Sex steroid hormones and gonadotropin concentrations
2. Consequences of Decreased Testosterone Concentrations
  - A. Bone
  - B. Body composition and muscle strength
  - C. Physical function
  - D. Cardiovascular and metabolic risks
  - E. Energy, cognition, and sexual function
3. Decreased Reproductive Function
  - A. Genetic associations
  - B. Lifestyle associations
  - C. Developmental associations
4. Male Infertility and Diseases
  - A. Cancer
  - B. Chronic diseases
  - C. Mortality risks

### Reading Material Resources

**Module WB2148: Adverse Effects on Male Reproduction** is based on the resources listed below. A copy of each resource is included with the module.

Chapter 15, Male Reproductive Aging, Yen & Jaffe's Reproductive Endocrinology, Strauss, Jerome, Elsevier, 2019, 357-364e2

Male Infertility and Somatic Health, Murshidi, et al., Urologic Clinics of North America, Elsevier, 47 (2020), 211-217