



Appendix A: Differential Diagnosis of Hypogonadism in Men

Adapted from Bhasin et al. 2018¹.

Primary hypogonadism	Secondary hypogonadism
Gonadal Disease	Hypothalamic/pituitary disease
<ul style="list-style-type: none"> • Kallmann syndrome and other congenital hypothalamic - pituitary conditions • Cryptorchidism, myotonic dystrophy, anorchia • Some types of cancer chemotherapy, testicular irradiation/damage, orchidectomy • Orchitis • Testicular trauma, torsion • Advanced age 	<ul style="list-style-type: none"> • Hypothalamic/pituitary tumour • Hemochromatosis • Radiation exposure, Infiltrative/destructive disease of hypothalamus/pituitary • Idiopathic hypogonadotropic hypogonadism
Secondary to a distinct illness or medication	
<ul style="list-style-type: none"> • Medications (refer to Appendix B) • End-stage renal disease 	<ul style="list-style-type: none"> • Hyperprolactinemia • Medications (refer to Appendix B) • Substance use (alcohol, marijuana, opioids) • Systemic illness • Nutritional deficiency/excessive exercise • Obesity, some sleep disorders, type II diabetes mellitus • Organ failure (liver, heart, and lung) • Comorbid illness associated with aging • HIV • Severe hypothyroidism

References

1. Bhasin S, Brito JP, Cunningham GR, Hayes FJ, Hodis HN, Matsumoto AM, et al. Testosterone Therapy in Men With Hypogonadism: An Endocrine Society Clinical Practice Guideline. *J Clin Endocrinol Metab* [Internet]. 2018 Mar 17 [cited 2018 Mar 22]; Available from: <https://academic.oup.com/jcem/advance-article/doi/10.1210/jc.2018-00229/4939465>