

### **Calculated Free Testosterone (CFT) in Males**

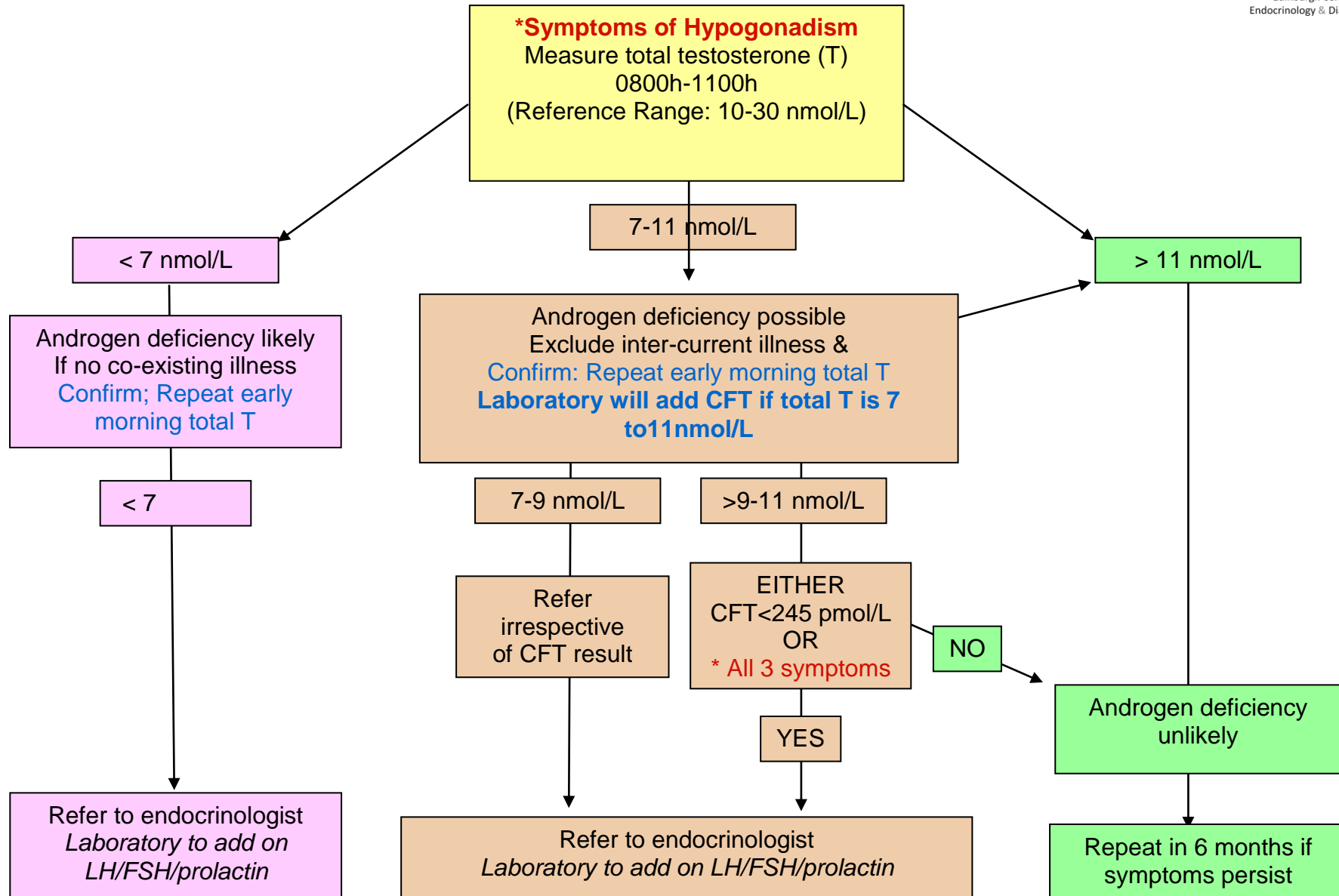
Testosterone circulates in blood bound to sex hormone binding globulin (SHBG) and albumin but a small fraction (approx 2%) is unbound and is known as free testosterone (FT). Total testosterone concentrations may become abnormal due either to altered gonadal function or abnormal SHBG concentrations produced by illness, alcohol or drugs. FT is considered to be the bioactive fraction and may provide a more reliable indicator of gonadal status than total testosterone. A calculated free testosterone (CFT), derived from the Vermeulen equation, provides a good estimate of FT in males. The attached report quotes a CFT result and compares it with a reference range derived from a local population of healthy males aged 20 - 45. In healthy males CFT decreases with age but currently there is no evidence to suggest that such patients benefit from testosterone replacement unless they are clinically hypogonadal.

For the investigation of suspected late-onset hypogonadism we suggest the algorithm shown below. This algorithm is adapted from recommendations approved by the Clinical Affairs Committee of the Endocrine Society, USA.

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# Algorithm for the investigation of suspected hypogonadism in primary care



CFT = Calculated free testosterone