Table 3: Prevalence of Testosterone Deficiency					
Author/Study	Number of Patients	Description of Population	Definition of Testosterone Deficiency	Method of Testosterone Deficiency Measurement	Prevalence of Testosterone Deficiency
Harman et al. 2000[5] *Baltimore Longitudinal Aging Study (BLAS)*	890	Generally healthy, middle class, 87% white Age range: 20-91 years (mean 63.8) Mean BMI: 25.6	TT <325 ng/dL or a FTI <0.153 Only one TT or FTI value needed to be in the deficient range to be considered testosterone deficient	Early morning samples from each subject's most recent and previous 3 visits as well as those from 10, 15, 20, 25, and 30 years prior were analyzed (3,565 samples total with a mean of 4 samples per patient). TT: RIA SHBG: RIA FT: FTI	50-59 years: 12% 60-69 years: 19% 70-79 years: 28% >80 years: 49%
Araujo et al. 2004[6] *Massachusetts Male Aging Study (MMAS)*	T1: 1,709 T2: 1,156	Patients were evenly divided among 40-49 years, 50-59 years, and 60-70 years; 95% white	TT<200 ng/dL combined with three or more symptoms (reduced libido, ED, depression, lethargy, inability to concentrate, sleep disturbance, irritability, and depressed mood), or a total testosterone level between 200- 400 ng/dL with three or more symptoms and a free testosterone level < 8.9 ng/dL	Patients were evaluated at 2 time points (T1: 1987-1989; T2: 1995-1997) separated by a mean of 8.8 years, all testing was done on single samples taken in the morning. TT: RIA SHBG: RIA FT: Sodergard equation assessment of patient symptoms	T1 40-49 years: 4.1% 50-59 years: 4.5% 60-70 years: 9.4% T2 40-49 years: 7.1% 50-59 years: 11.5% 60-70 years: 22.8%

Mulligan et al. 2006[7] *Hypogonadism in Males (HIM)*	2,098	All men ≥45 years (mean 60.5) undergoing routine evaluation by their primary care physicians, 82% white Mean BMI: 29.7	TT <300 ng/dL, or men who were previously diagnosed with testosterone deficiency and who were currently using testosterone therapy	All draws were performed between 8a.m. and noon. TT: RIA SHBG: RIA FT: equilibrium dialysis Bioavailable T: Ammonium sulfate precipitation	38.7% of study population Mean testosterone level 245 ng/dL 17% increase in testosterone deficiency per decade of life
Wu et al. 2010[8] *European Male Aging Study (EMAS)*	3,219	Age range: 40-79 years (mean 57.9)	TT <317 ng/dL along with the three sexual symptoms (sexual function [e.g., decreased frequency of morning erections, decreased frequency of sexual thoughts, ED, physical symptoms [e.g., inability to perform vigorous activity, inability to walk more than 1 km, inability to bend, kneel or stoop], and psychological symptoms [e.g., loss of energy, sadness, fatigue]	Men evaluated by primary care physicians had a single lab draw prior to 10a.m. and were administered a series of questionnaires. TT: GCMS SHBG: Immunoassay FT: Vermeulen equation	2.1% of study population
BMI: body mass index, ED: erectile dysfunction, FT: free testosterone, FTI: free testosterone index, GCMS: gas chromatography mass spectrometry, RIA: radioimmunoassay, SHBG: Sex hormone binding globulin, TT: total testosterone					