Testosterone deficiency (TD) is an underdiagnosed and undertreated condition among Georgian men. Study of hypogonadism in males, revealed that 38.7% of men visiting a primary care practice and aged 45 and older had positive tests for hypogonadism, defined as a total testosterone (TT) level <300 ng/dL We report a case of 48-year-old man, who came to the clinic for scheduled visit. Today, he complains for fatigue, weight gain, and decreased libido, although he denies erectile dysfunction. He states that his wife is concerned that he may be depressed, given his lack of interest in sex. He takes glibenklamide/metformin for type 2 diabetes mellitus (T2DM), which was diagnosed 4 years ago. Body mass index (BMI) was: 31.1 kg/m², Blood pressure (BP): 138/90 mmHg. He had HbA1c: 6.4%, serum TT level at 9:30 AM was 290 ng/dL, which was confirmed by retest results. We recommended weight loss, Letrazolium and TRT. After 3 months, he returns for his scheduled follow-up evaluation. He has lost 7 lb, reducing his BMI slightly to 30.1 kg/m². His blood pressure is 128/86 mm Hg, and his metabolic profile is improved. His fasting plasma glucose has decreased to 101 mg/dL, and his HbA1C is 6.0%. His complete blood count and liver function tests remain normal. He has experienced no side effects from his TRT. His TT has increased and reached target range (390 ng/dL). His mood has improved, and he reports an increase in the frequency of intimacy with his wife. Despite his controlled symptoms and improved overall health profile, he is still overweight. He should be counseled that if he continues to lose weight, he may further improve his blood pressure and glycemic control as well as sexual performance.