**Objective:** One of the patient related prognostic factors in implant dentistry is bone mineral density (BMD). BMD of the jaws has been also gaining importance in contemporary dental practice, since mandibular BMD may have an important role in treatment planning, management and prognosis of such procedures. The aim of this study was to compare mandibular body BMD in women and men and to investigate the relationship between BMD, body mass index (BMI), period of edentulism, age and years since menopause.

**Material and Methods:** 38 edentulous patients’ (19 females and 19 males) mandibular body bone mineral densities were measured using dual energy X-ray absorptiometry technique. Osteoporotic subjects were excluded from the present study. The measurement results were recorded as g/cm². The correlations between BMD, BMI, period of edentulism, age and years since menopause were investigated using by the correlation analysis. The data were analysed using SPSS 13.0 statistical software.

**Results:** The mandibular body bone mineral density measurements were higher in the men (1.47 ± 0.39 gr/cm²) than in women (1.21 ± 0.42 gr/cm²). There was a statistically significant difference between mandibular body bone mineral density of the men and women (p= 0.02). For the whole group (n= 38), bone mineral density value was 1.34 ± 0.43 gr/cm². There was a weak correlation between BMD, BMI, period of edentulism, age and years since menopause.

**Conclusion:** In the present study, it was found that mandibular body bone mineral density was lower in women than in men. However, there is a need for further studies including larger study groups to determine the specific effects of sex on mandibular body bone mineral density for dental procedures.