This theses summarizes the knowledge of calcium, vitamin D and it's effect on bone mineral density. The theoretical part includes a view of osteoporosis in terms of causes, diagnosis, treatment and prevention of this disease. The research includes a summary of the data obtained from the questionnaires and densitometric examination of Osteocenter 3rd Department of Internal Medicine of 1st Faculty of Medicine of Charles University and VFN in Prague and their assessment of calcium and vitamin D intake in relation to the value of bone mineral density.

The results obtained from the collection of questionnaires and densitometric examination appeared that higher calcium intake ensures higher BMD as for women, this wasn't confirmed concerning men. Vitamin D has also a major impact on the value of bone mineral density. The questionnaires show lower intake of this vitamin. Calcium and vitamin D are irreplaceable in terms of bone mineral density, therefore their regular daily intake is very essential.