CONCLUSION
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The primary aim of this thesis was to show how PEMF exposure can be used to prevent the loss of bone due to osteoporosis. Various experiments were conducted in this direction, and the results obtained can be summarised as follows:

1. PEMF stimulation offers protection against the ovariectomy induced osteoporosis.
2. Mineral precipitation increased significantly against the ovariectomy induced decrease in BMC, BMD, Calcium contents and Phosphorus Contents.
3. PEMF stimulation increased Cortical and Cancellous bone properties in osteoporotic rats. Trabecular bone loss was reversed significantly in exposed rat bones.
4. Electromagnetic field stimulation increased osteogenesis in induced osteoporotic rat bones. Bone cells proliferation as well as differentiation were more in exposed group.
5. PEMF exposure protected against ovariectomy induced weakening. Amount of collagen type I was significantly increased.
6. PEMF exposure did not show DNA damage in bone marrow cells.

Mineralization, Bone cell proliferation and differentiation, Compactness of cotical and cancellous bone and Collagen concentration were certainly given support to osteoporotic bone and enhance quality.

In conclusion, the above results further strongly support the hypothesis that the PEMF stimulation protects effectively against the progression of osteoporosis.

Effective clinical use of electrical stimulation to promote osteogenesis (in fracture healing and osteoporosis), should be adopted.