

Hormones, the Endocrinologist and Osteoporosis

preface

ON BEHALF OF THE BRAZILIAN Society of Endocrinology and Metabolism and its Department of Bone and Mineral Research and the Brazilian Society for Bone and Mineral Research, we are very pleased to provide you with this special issue of the Brazilian Archives of Endocrinology and Metabolism — Arquivos Brasileiros de Endocrinologia & Metabologia — the Society's official journal, on Metabolic Bone Diseases and Related Disorders.

Hormones have profound influences on bone throughout life, with marked differences between the male and the female. In infancy and childhood the growing skeleton needs adequate amounts of growth hormone and thyroid hormone, among other regulators, to maintain normal growth velocity that is essential for optimal stature.

During puberty, sex steroids are very important in inducing growth spurt as well as contributing enormously to peak bone mass. Young men begin adult life with stronger bones and greater resistance to fractures compared with young women, reflecting the differential actions of the sex steroids on bone mass, areal density, microarchitecture, and on bone geometry.

During the early adult years, these bone qualities are generally maintained in men and women due to the steady state achieved in bone remodeling and the principles that control it, such as parathyroid hormone and vitamin D.

With aging, men and women experience a decline in bone mass and many other aspects of bone quality, especially in women after the menopause. This is reflected by a rise in the risk of osteoporotic fractures.

Major advances in our understanding of the processes that regulate the skeletal system are related to bone quality and the hormones that control it. In addition, major therapeutic advances have given the practitioner a variety of therapeutic options.

We are grateful to the many contributors of this issue who provided their experience and expertise. We trust that the information presented in this supplement will serve to update your research and clinical activities related to bone disorders.

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