

Exercise at a Young Age may be Beneficial*

During the first few months of life muscles, tendons, ligaments, articular cartilage and bone (musculoskeletal tissues) pass through a dynamic period of growth and remodelling.

These tissues, some of which are notorious for their lack of regenerative capacity in the adult (eg articular cartilage and tendons), seem to be moulded in the growth period by the amount and character of exercise. A study at the University of Utrecht in the Netherlands in which the musculoskeletal tissues of foals kept in boxes, with and without exercise, were compared with those in foals raised at pasture with free exercise showed that the foals raised at pasture developed stronger tissues.

Foals allowed free pasture exercise were shown to gallop, on average, 3-5 minutes every 24 hours. This was divided into approximately 40 sprints.

The researchers found that from birth to 5 months the musculoskeletal tissues developed rapidly and dynamic remodeling took place. From 5 to 11 months these processes continued but at a slower rate and there were indications that some tissue components (such as articular cartilage collagen) were already almost at their adult level at 5 months.

Enforced withholding of exercise led to a retardation in development.

During the study it became clear that any exercise protocol at a very young age should be extremely well balanced to avoid adverse effects.

* Taken from a paper by P Rene van Weeren et al given at the 46th Annual Convention of the American Association of Equine Practitioners, Nov. 2000.