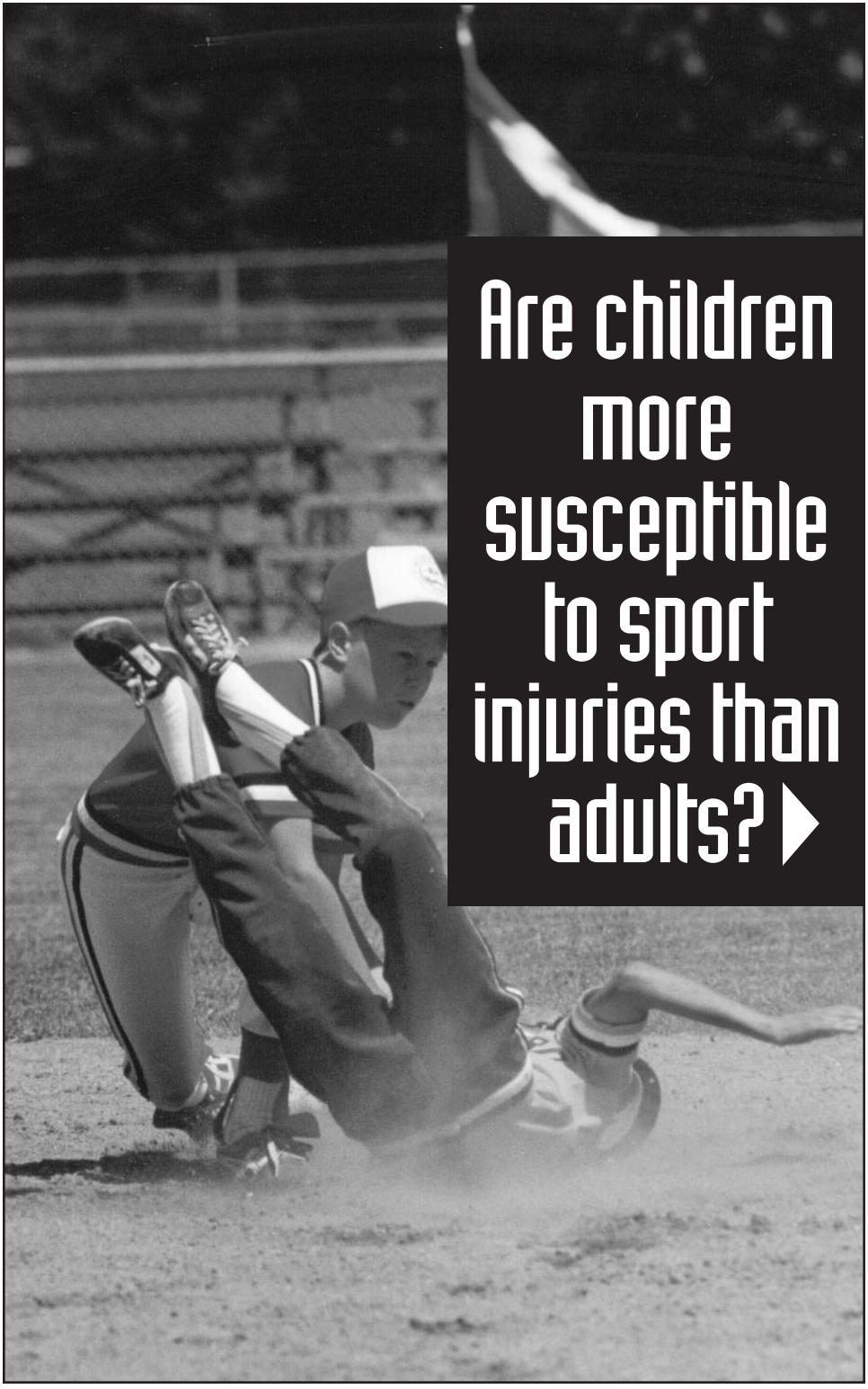

The Ottawa Citizen

There is always a risk of injury associated with involvement in sport. Children are particularly prone to injury, even when they're not playing sport, because they tend to be more active than adults.

When children are injured during sport, the results can be more serious than for adults. Unlike adults, children's bones have growth plates — the soft cartilage near the ends of longer bones in the arms and legs — that are responsible for bone growth. In children, these plates may be the weakest link within the bone, making the bones susceptible to a fracture or break. Breaks involving the growth plate are serious and, if not treated properly, may interfere with growth.

Dr. William MacIntyre, an orthopedic surgeon at Ottawa's Children's Hospital of Eastern Ontario, says parents are often surprised to discover that a child has a fracture. They assume kids have rubber bones which will bend but will not break.

Growing may make children more susceptible to injury. Growth spurts can make some children more awkward as growing can throw off balance and coordination, even when the child has been previously agile.

Growing can also cause decreased flexibility for periods of time. Bones, as they grow, cause the muscles to become tighter than normal during growth spurts. In other words, as bones grow, they pull the muscles, which respond by constantly stretching until the muscle accommodates to the new bone length.

Young athletes are particularly vulnerable to injuries because the decrease in flexibility increases the risk of muscle imbalance problems. Training that overemphasizes one muscle group may also expose the growing athlete to injury.

Every child needs to exercise regularly to ensure normal physical growth and development. Youngsters who spend their free time watching TV or engaging in other sedentary pursuits may have impaired bone growth. Recent studies have shown that when weight-bearing physical activity is increased, bones become progressively denser and stronger. Children who take part in weight-bearing physical activity also have denser and stronger bones when they reach adulthood.