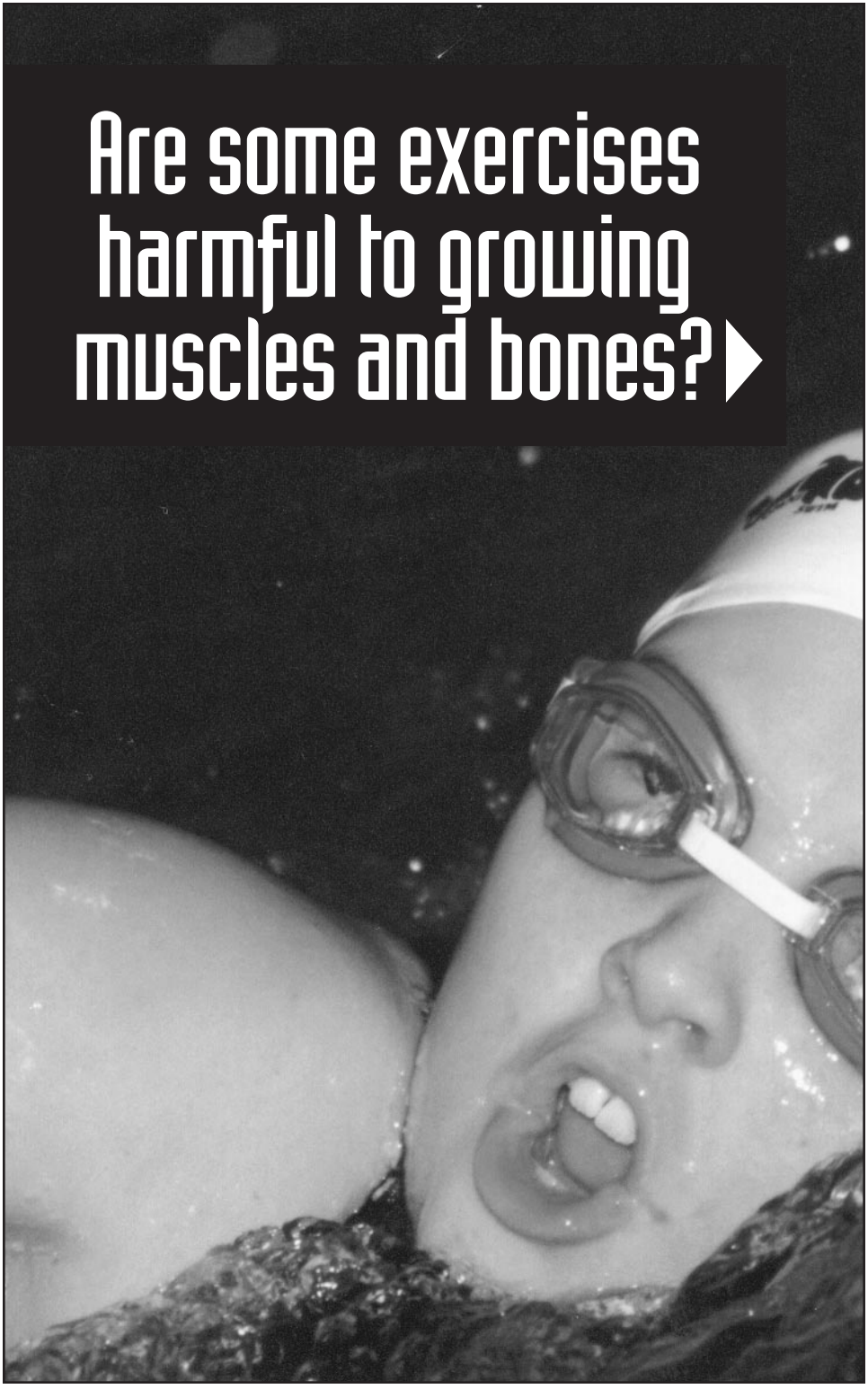
Are some exercises harmful to growing muscles and bones?



Swim Ontario

Most exercises are not harmful if performed properly and within certain limits. However, growing children should never lift heavy weights. Children have a natural tendency to push their limits, to see how fast they can run or how far they can climb. Finding out how much they can lift could be dangerous for the pre-adolescent. Under proper adult supervision, children can use light weights; that is, those they can comfortably lift 12 to 15 times. Excessively high repetition should also be avoided.

Overstretching or stretching a joint beyond its normal range of motion can be harmful for a youngster. Stretching is best done by the child itself after proper training. Sometimes when a coach or teammate helps a child stretch, they may stretch a joint beyond its normal range. This type of overstretching increases the laxity in the joint, making it more susceptible to injury.

In particular, overstretching the shoulder joint makes it prone to dislocation. This shallow joint has the most mobility of any of our joints. The soft tissue structures surrounding the joint have quite a bit of give, but they need strong muscles to maintain stability. When the shoulder joint is overstretched, the capsule and ligaments may no longer provide sufficient stability to prevent shoulder dislocations later on.

Competitive swimmers and gymnasts are particularly susceptible to shoulder problems such as tendinitis and dislocations. Tendinitis is caused by a combination of overuse and weak muscles. This type of injury is common in the shoulder, elbow, and ankle joints. In general, treatment for tendinitis is rest, applying an ice bag, and performing stretching and strengthening exercises — without overstretching.

Sports such as gymnastics, diving, figure skating, and weightlifting, where athletes are likely to perform hyperextensions of the lower back, can cause a defect in the lower spine in which one vertebrae slips forward onto the next lower vertebrae. Explosive landings in an arched position and back handsprings may result in a hyperextension injury of the lower back. Abdominal muscle strength is very important in trying to avoid hyperextension injuries to the lower back. Coaches should avoid putting children in a situation where they put stress on a hyperextended body joint.