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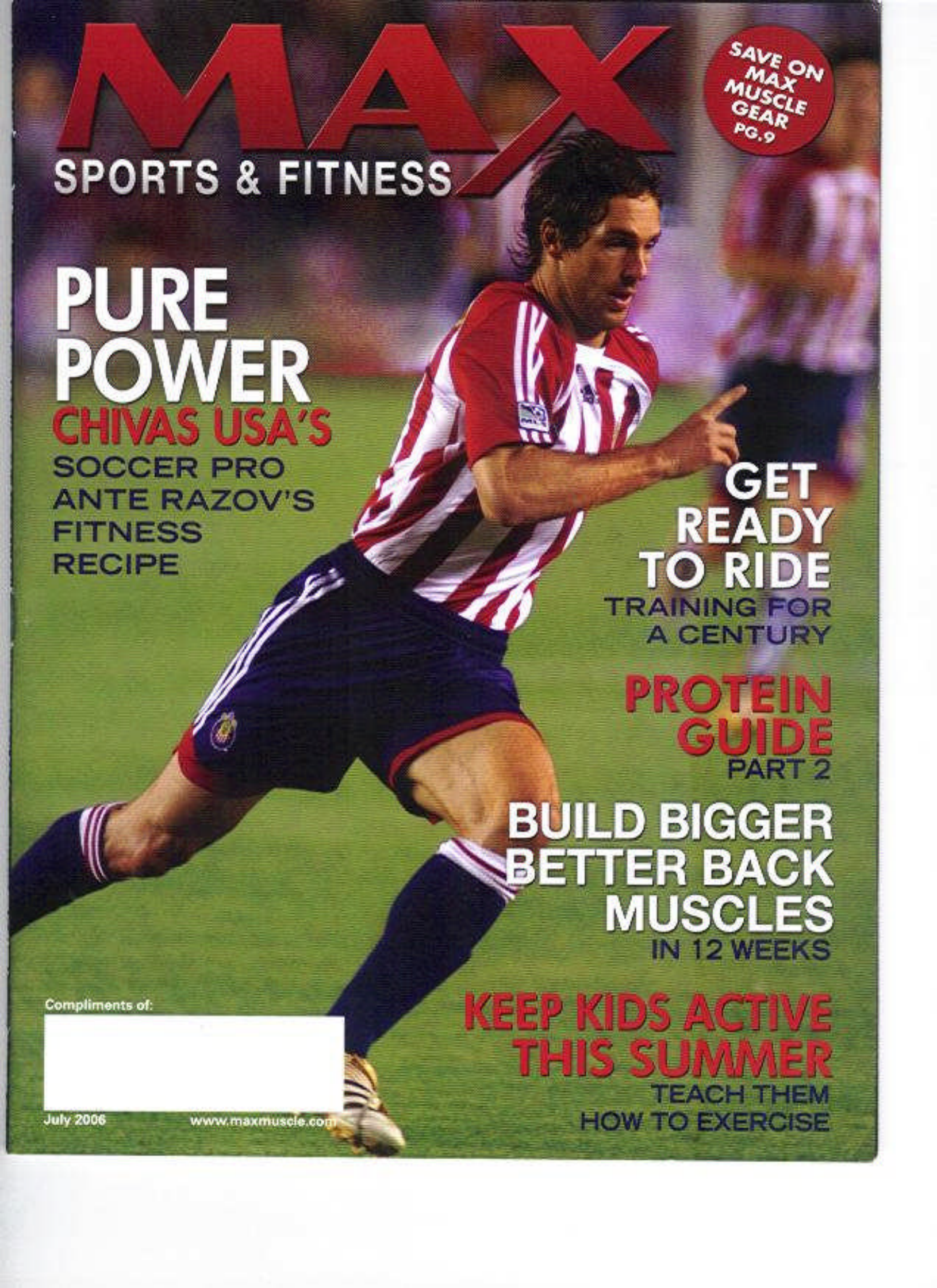
TEACH THEM  
HOW TO EXERCISE

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# Keep Kids Fit

Start children strength training early so they can grow strong and healthy

By John Platero CPT, RTS

**W**hen I was a kid, adults told me if I exercised with weights, it would stunt my growth and give me hemorrhoids, and, if I were a woman, it might turn me into a man. In truth, strength training for children has a number of benefits including improved motor function and coordination, enhanced sports performance, protection against injury and weight loss. Most children perform some type of resistance training every day anyway – from biking, climbing and doing cartwheels to skipping, jumping and playing on the monkey bars.

But when you mention strength training as a positive thing for children, some people are quick to argue against it. They believe notable changes in muscular strength and endurance can't occur prior to puberty due to lower levels of the hormones necessary for building muscle. Others say lifting weights puts children at risk for injuring the cartilage at the ends of bones that haven't fused together yet.

However, those in favor of strength training for children base their beliefs on a growing body of scientific evidence. For the last 15 years, a number of studies have provided strong documentation

that both male and female pre-adolescents can improve strength significantly by adhering to well-designed resistance training programs. So, those who are taking heed to the truths of this research are engaging their children in supervised resistance training exercises. And, as a result, more and more children and adolescents are experiencing the benefits of strength training. (And they're hemorrhoid free and growing just fine.)

**Any child who participates in organized sports or activities ... is ready for some type of strength training.**

**Are there any concerns?**

The concern for injury to the cartilage is reasonable because a child's skeleton is still maturing and damage to the bones or growth

plates is potentially serious. Fractures have been reported, but additional contributing factors such as improper technique, lack of supervision, excessive loading, unsafe movements, steroid abuse and repetitive abuse have been to blame more often than not. So, children should be supervised when training or exercising and care should be taken that they're doing everything correctly.

**When are children ready to begin strength training?**

During sports or activities, children may encounter forces up to three times their body weight or more. For this reason, any child who participates ➤

in organized sports or activities such as soccer, little league baseball, basketball, gymnastics or just playing at a park is ready for some type of strength training.

The goal of strength training is ultimately to improve muscular strength. Programs should be effective, safe and fun. Remember, strength training is only one part of a well-rounded program that should also include agility, flexibility and endurance.

### What kind of exercises?

A variety of training programs and equipment such as weights, tubing, medicine balls, body weight and mini trampolines are safe and effective for children and preadolescents. Using different types of equipment allows programs to be fun, exciting, and prevents boredom.

There is not a lot of research on the exact recommendations for sets and reps for children and

adolescents. Emphasis should be placed on proper technique and safety not the amount of weight that can be lifted. You can use the recommendations mentioned in the following chart as a start.

Remember that a properly designed and supervised program will ensure a safe, effective and fun training environment for children and adolescents. **MS&F**

## Basic Guidelines for Resistance Exercise Progression in Children

Experts recommend children exercise with the minimum dosage of training that produces beneficial improvements in strength and health without undue risk. In my professional opinion, intensity should be moderate, approximately 10-15 repetitions and preadolescents should avoid maximal lifts.

Children can begin a program with one set of little or no weight and can concentrate on learning proper form. Once they execute the movement with proper form, a resistance can be selected that allows a minimum of approximately

10 repetitions to be performed. The number of reps is then increased until 15 repetitions can be completed. As the child advances, 1-3 sets can be added as tolerated.

The following is a conceptual recommendation for parents who are already familiar with exercise training. To describe what to do for each age group would take separate lengthy articles. Talk to a physician or a personal trainer who understands children's exercise needs before starting them on any program.

### 7 or younger

- Introduce child to basics exercises with little or no weight
- Develop the concept of a training session
- Teach exercise techniques and progress from body weight calisthenics, partner exercises and lightly resisted exercises
- Keep volume low
- Make it fun by trying an obstacle course with crawling and jumping

### 8-10

- Gradually increase the number of exercises
- Practice exercise technique in all lifting type exercises
- Start gradual progressive loading of exercises
- Keep exercises simple
- Gradually increase training volume
- Carefully monitor toleration to the exercise stress

### 11-13

- Teach all basic exercise techniques
- Continue progressive loading of each exercise
- Emphasize exercise techniques
- Introduce more advanced exercises with little or no resistance
- Exercises should focus on multi-joint or compound exercises such as squats, push-ups, rows, presses and cleans
- Single joint exercises such as curls, tricep extensions, lateral raises, hamstring curls and leg extensions can be added as well

### 14-15

- Progress to more advanced youth programs in resistance exercise
- Add sport-specific components
- Emphasize techniques
- Increase volume
- At this age, children can do almost any exercise, so don't be afraid to incorporate more into their routine

### 16 or older

- Move to entry-level adult programs after all background knowledge has been mastered and a basic level of training experience has been gained
- Address all components of fitness: cardiovascular, balance, coordination, flexibility, strength and nutrition

