

# FUNDAMENTALS OF FITNESS

## Big muscles vs. strong muscles

When they hear the words “strength training,” many people automatically think of weightlifting and big muscles. This is not the only result of strength training. Different exercise programs and routines yield different results for everyone. The goal for strength training should be to increase overall strength and power. These goals do not necessarily require that muscles increase in size, but it can happen for some people. Everyone’s muscles grow and develop differently. Just because they don’t see their muscles getting bigger does not mean that they are not getting stronger.

## Simple strength exercise

Many people think strength training can only be accomplished in a gym or workout center. Although many people workout there, children can strength train at their gymnastics club or even at home. Everyday items can be turned into strength training fitness equipment. For example, an empty milk jug can be filled with water or sand and used for resistance or a can of soup can be used as a dumbbell.

## Safety

Some parents may worry about the safety of young children doing this kind of exercise. However, if old enough to participate in organized sports or activities, kids are old enough to strength train. There is little risk of injury during this kind of training as long as it is supervised to ensure proper technique and form. It is also a myth that strength training will stunt a child’s growth. As long as sub-maximal weights are used (less than the maximum weight the child can lift) for 10-20 repetitions, strength training can be incredibly beneficial for children. Examples of strength training exercises are found beginning on page 15.

## Flexibility

### What is flexibility?

Flexibility is having the ability to move through a normal range of motion for a given joint without pain or hindrance. Flexibility exercises, or stretching exercises, help increase the range of motion for a given joint or set of joints. Flexibility allows muscles and joints to avoid becoming stiff. Flexibility is not something a child either has or doesn’t have.

Rather, flexibility is measured in degrees. For example, a gymnast or dancer would be considered more flexible (higher range of motion through their joints) than a basketball player.

### Guidelines for stretching/flexibility exercises

Flexibility should be approached with a great deal of caution. Muscles should always be stretched after they have been warmed up. This means some kind of cardiovascular exercise needs to be done before any stretching occurs. As you have read, cardiovascular exercise gets blood and oxygen pumping through the body faster, allowing muscles to work better. Children should always be instructed on proper form and technique for any kind of stretching. Stretching too much at the beginning of class when muscles aren’t warm can lead to joint injuries. Light stretching may be done at the beginning of the workout to help warm up joints and prepare them for the workout ahead. However, any stretching to improve flexibility should be done at the end of the workout when muscles are warm and less likely to be injured.

Stretching should never hurt. Make sure you help the children understand the difference between muscle resistance felt when stretching properly and pain from improper stretching. Stretches should be held for 20-30 seconds, breathing deeply to relax into the stretch. The body’s natural response to stretching is to resist it, so gently working into a stretch is the safest approach. Examples of flexibility exercises are found beginning on page 23.

## Nutrition

### What is nutrition?

Nutrition is how food nourishes the body. More than 40 nutrients are found in foods and each has a specific and unique job to help keep kids active and reduce the risk of certain diseases. There are six groups of nutrients: carbo-

hydrates, protein, fat, vitamins, minerals and water. Choosing nutritious and flavorful foods on a daily basis will help fuel the body and promote good health.

### Why is nutrition important?

Good nutrition can help lower the risk of certain diseases, including heart disease, diabetes, obesity, certain cancers and high blood pressure. All of these health problems have contributed significantly to disability and death in the United States. By developing and maintaining good nutritional habits at a young age, children can help to reduce their risk of these diseases.

The USA Gymnastics Fitness Program has an overall health theme. Because a healthy and balanced diet is important to overall fitness, proper nutrition is a key to providing the fuel kids need to complete the USA Gymnastics Fitness Program. To make the nutrition section interesting and easy to understand, handouts are provided in this handbook as well as fun facts and challenges for kids and their families to try.

Make sure you make copies of the handouts to distribute to the kids. Handouts begin on page 31.

