

# MUSCLES IN MOTION

## Muscle & Bone Strength

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### What is the difference between Muscle Strength and Muscle Endurance?

Building healthy muscles in young children is important for future confidence and motor skill development. There are 2 ways to build strong muscles:

**Muscular Strength** - This involves the child's ability to lift *heavier objects* (or lift his own body weight) for a *brief* period such as hanging from a monkey bar.

**Muscular Endurance** - This involves a child's ability to lift *lighter objects* for a *longer* period of time such as carrying a light stack of blocks to another room.

While each are slightly different, they are both important to overall muscular fitness.

Some great ideas to improve **BONE STRENGTH** include:

- Jump rope or hopscotch
- Climbing a tree or ladder on a playground slide
- Doing frog hops or crab walks across the floor
- Hopping like a bunny or balancing on one foot

Preschoolers have a lot of energy, and they use it in a more organized way than when they were toddlers. Instead of just running around in the backyard, a preschooler has the physical skills and coordination to try more difficult activities such as riding a tricycle. During these early years they are also discovering what it means to play with a friend instead of just alongside another child. They become more competitive and want to try new things with their friends such as hopping, jumping forward, catching a ball, doing a somersault, skipping and balancing on one foot. Building strong muscles and bones and learning a variety of motor skills will allow children to be successful and expand their play while gaining important social skills, such as sharing and taking turns.

**CORE MUSCLES** It is important to provide opportunities for children to strengthen their core muscles and build upper body strength. Core muscles are the muscles found in the trunk of the body such as the abdomen, hip and back. Gaining strong core muscles will provide a solid and stable core foundation for athletic activities that also rely on the skill of using the arms and legs such as swinging a bat, running and kicking a soccer ball, riding a bike or skateboard, etc. While lifting weights is not good practice for young children, lifting their own body weight can be beneficial for building strong muscles and bones.



**WEIGHT-BEARING ACTIVITIES** Providing opportunities for weight bearing exercises are critical to building strong, healthy bones during the growing years. Weight bearing exercises place the stress of the child's body weight on his bones and muscles to help build strong bones. Activities include running, jumping, hopping, skipping and dancing because they work against gravity to keep the child in the upright position.

Some great ideas to improve **MUSCLE STRENGTH & ENDURANCE** include:

- Hanging from a monkey bar
- Games like Tug of War
- Doing a somersault, tumbling or gymnastics
- Doing a handstand
- Playing catch or swinging a bat
- Riding a bike or scooter (And always wear a helmet!)



### REFERENCES

2018 Physical Activity Guidelines Scientific Report for youth: Ch.7" Department of Human and Health Services, 2018, [health.gov/our-work/physical](http://health.gov/our-work/physical)



### EXTENSION

College of Agriculture,  
Biotechnology & Natural Resources