

# Strength Training Guidelines for Children

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## Can children participate in strength training programmes?

Strength training can be defined as a method of improving muscular strength by gradually increasing the ability to resist force through the use of free weights, machines, or the person's own body weight. Strength training sessions are designed to impose increasingly greater resistance, which in turn stimulates the development of muscle strength to meet the added demand (Baechle et, al 2000).

The American Academy of Pediatrics and the National Strength and Conditioning Association (NSCA) have proposed that children can safely perform strength training provided the programme is adequately planned and supervised. Furthermore, the Surgeon General's report on physical activity and health also encourages children aged six and older to develop and maintain muscular strength and endurance.

Despite the known benefits of strength training for children - teachers, fitness instructors, and youth coaches are often not sure how to proceed, and they end up watering down adult versions of strength training programmes. Ideally, children should be properly evaluated by a health care professional that can prescribe a training programme that is in accordance with the needs and abilities of the child.

## Considerations when prescribing strength training programmes for children:

Important aspects to bear in mind when prescribing strength training programmes for children include:

- **Training age**

Training age refers to the length of time a child has had any form of strength or resistance training. If a child has not done any form of strength training it is important not to start off with heavy weights but rather to use resistance bands or own body weight exercises.

- **Two or more years**

A child needs to be physically active for 2 or more years before adapting or increasing work load.

- **Emphasize flexibility**

During periods of rapid growth the muscles around the joints and growth plates are very sensitive and often tight. Therefore proper stretching and flexibility exercises should be included in a child's training programme.

- **Developed nervous system**

The reactions and movement skill of a child must be taken into consideration when prescribing strength training exercises. Not all children develop their motor skills equally.

- **Body type**

The body type of a child also needs to be taken into account when prescribing strength training exercises for children. For example, mesomorphic children generally have more developed musculature and broader shoulders. Endomorphic children have rounder and broader hips. While children who mature late tend to be ectomorphic, slender and tall.



### Guidelines for prescribing strength training programmes for children

The following guidelines should be adhered to when prescribing a strength training for children in order to ensure the programme will be both safe and effective in bringing about the desired changes.

- The very first approach to creating an exercise routine is always to begin with a range of **8 – 15 repetitions**. The resistance should be selected such that the child can complete the set amount of repetitions.
- A frequency of **two times per week** for duration of eight weeks (Baechle & Earle, 2000; Malina, 2006). You need to make sure that workouts are spread out enough to get no less than **one to two full days** of relaxation between routines.
- The target whenever working out should be on **correct form / technique** of each exercise carried out, rather than on the amount of weight being lifted.
- **Increase resistance gradually** and only when the child can perform the specified number of repetitions with good form.
- Use **equipment** that is appropriate for the size, strength and maturity of the child.
- Prior to exercising, **warm up and stretching** should be carried out.
- Start your children with gentle loads and then make adjustments accordingly.
- No more than three consecutive exercise sessions carried out per week.
- You must also make sure that they **drink plenty of water** just before, during and right after exercise.
- Teach your child what their true capabilities are and stay **safe and positive** with them. Emphasis should be placed on fun and enjoyment.
- Set **goals** that are realistic and appropriate.

