

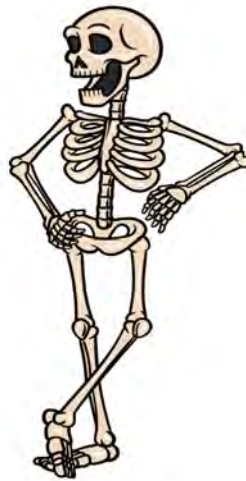
For Strong, Healthy Bones

Strong bones start in childhood

Researchers suggest that we think of the skeleton as a “bone bank.”

Deposits in this bone bank are made through healthy nutrition and physical activity. Just as a muscle becomes stronger and bigger when it is used, a bone becomes stronger and denser when it is subjected to stress.

Good bone health requires an adequate intake of calcium and vitamin D, as well as participation in weight-bearing physical activities, such as running or jumping.



Calcium forms the structure of bones and teeth, while vitamin D helps the body to absorb calcium; together, they contribute to the formation and maintenance of strong bones and teeth.

Calcium mainly comes from food sources, while vitamin D can come from sun exposure, supplements, and certain foods.

People with darker skin produce less vitamin D from the sun. Therefore, it is recommended they take a vitamin D supplement of 400 IU each day.

Physical Activity and Bone Growth

Physical activity has a positive effect on bone health in preschool-aged children. A study conducted among 467 five-year-old children found that physically active boys and girls had stronger bones than less active children. Bone strengthening benefits from childhood physical activity are maintained into adulthood.



How Does Exercise Strengthen Bones?

Weight-bearing exercises stimulate and strengthen bones. Examples include running, jumping, hopping, and dancing.

- Children 1–4 years: 180 minutes of physical activity every day.
- Children 5–18 years: 60 minutes of moderate to vigorous physical activity every day.

Nutrition

Calcium helps maintain strong bones and teeth. Vitamin D promotes the absorption of calcium by the body.



Some Calcium-Rich Foods:



Dietary sources of calcium include various protein-rich foods and certain dark green vegetables:

- Tofu
- Some fishes (sardines, shrimp, canned salmon with bones)
- Some veggies (rapini, okra, Chinese broccoli, spinach)
- Unsweetened low-fat dairy
- Low-fat cheese
- Soybeans, white beans
- Oats, almonds, cashews

Some Vitamin D-Rich Foods:



Vitamin D is made by our body when exposed on the sun. The sun access and exposure are not sufficient between october and march, making nutrition and supplements very important:

- Egg yolk
- Soft margarine
- Salmon fish, Arctic char, rainbow trout
- Fortified plant beverages
- Dairy products

References

- <https://healthystartkids.ca/tool/leap-hop/>
- <https://canada.ca/en/health-canada/services/nutrients.html>

Let's Play and Talk: Parachute Game



A fun indoor or outdoor game that promotes the development of motor skills (running, coordination, planning), as well as bone health. Use a parachute, sheet, or tablecloth.

During this game, weight is placed on the children's bones, which helps strengthen them.

How to Play:

- Spread out the parachute and ask the children to stand evenly spaced around it. Children hold the parachute at waist height with both hands.
- Together, the children lift and lower the parachute while counting (one, two, three). On "three," they lift the parachute above their heads. They then let it fall naturally instead of pulling it down themselves.
- After repeating this a few times, invite the children to step forward one or two steps when the parachute is in the air and forms a "mushroom," then step back when it falls. Once they master this, they will be ready to play many other parachute games. See the HOP manual on our web site, pages 68-69 and 72-73 for other ideas.

<https://healthystartkids.ca/tool/leap-hop/>