



## How to support children with gross motor delay “Age 3 to 6”

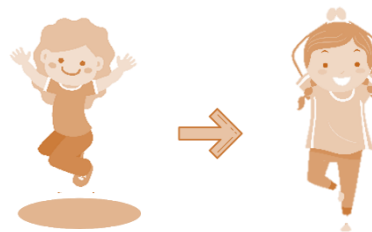
### **Children’s gross motor development at stages of 3 to 6 years old**

Gross motor development involves whole body physical activities. It allows children to move freely in their daily environment and engage in various activities and sports such as walking, running, throwing and jumping. These skills are also related to body awareness, agility, balance and strength.

Generally, children walk up stairs with alternate feet and down stairs with two feet per step around three-year-old, can start to hop on one leg and walk down stairs with alternate feet at three and a half years old. With enough practices, their balance and coordination will improve gradually.

When children are six, they have better muscle strength and endurance. They can walk up and down stairs with objects in both hands, and they have also begun to develop more complex movements such as rope skipping and dribbling ball.

## What is gross motor delay?



Children with gross motor delay fail to do activities at their age. The development of each child varies. Most children can jump at two, walk up stairs without support at three, and hop on one leg at four.

## What is the gross motor development in children?



### List of gross motor development of children age 3 to 4 years old:

Ride a tricycle	<input type="checkbox"/>
Walk up and down stairs, alternate feet with rail support	<input type="checkbox"/>
Jump forward 5 times continuously with both feet	<input type="checkbox"/>
Stand on one leg 3-5 seconds steadily	<input type="checkbox"/>
Catch a medium-sized ball (7-8 inches in diameter) thrown from 5 feet with both hands and arms	<input type="checkbox"/>

**Red flag : Unable to walk up & down stairs / Unable to jump forward with both feet**

### List of gross motor development of children age 4 to 5 years old:

Walk forward on line with alternate feet	<input type="checkbox"/>
Walk up and down stairs with alternate feet independently	<input type="checkbox"/>
Hop on one leg 3-5 times continuously	<input type="checkbox"/>
Throw ball to target 5 feet away	<input type="checkbox"/>
Catch a medium-sized ball (7-8 inches in diameter) thrown from 5 feet with both hands	<input type="checkbox"/>

**Red flag : Unable to walk up & down stairs with alternate feet / Unable to hop**

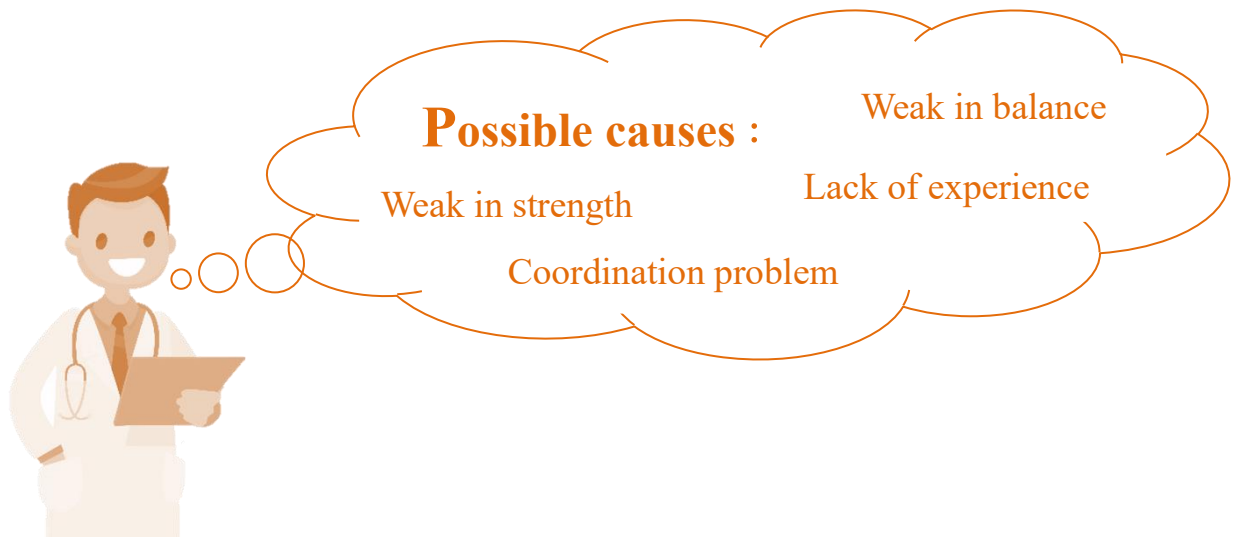


### List of gross motor development of children age 5 to 6 years old:

Walk up and down stairs with objects in hands	<input type="checkbox"/>
Jump over knee-high hurdle with both feet	<input type="checkbox"/>
Hop forward 10-20 feet continuously	<input type="checkbox"/>
Single leg stand 10 seconds	<input type="checkbox"/>
Catch tennis ball thrown from 5 feet with both hands	<input type="checkbox"/>

**Red flag : Unable to hop continuously on one leg / Unable to catch ball (7-8 inches in diameter) with hands only**

\*The above developmental lists are for reference only, not a formal developmental evaluation chart



**Children aged 3 to 4 years old unable to do what they should do? What exercises and activities can help?**

**Recommendations:**

● Strengthening the postural / core muscle:

- ✓ Four point kneel, lift up left arm & right leg or right arm & left leg at the same time, hold for 10 seconds, repeat 3-5 times
- ✓ Lie down, bend hips and knees, raise up buttock and maintain posture; to increase the difficulty, raise up one leg and use only one leg for support, hold 10 seconds, repeat 3-5 times each sides



- Strengthening the leg muscle:



- ✓ Half-kneel and maintain position, not to be pushed down by parent
- ✓ Stand with 1 leg on the air pump, stepping on it continuously to inflate a balloon
- ✓ Squat and walk like a duck, transporting small objects back and forth into the basket
- ✓ Prepare two floor mats and place them on the ground. Children stand on a mat and transport the other mat to the front. Ask the children to jump in and repeat the above steps to jump to the goal at the fastest speed



- Improving single leg balance:

- ✓ Prepare a shoe box, put a small ball on it and ask the children to kick the ball off without kicking the shoe box
- ✓ Put a toy piano on ground while the children stand on a fixed low step, ask the children to press the keys with 1 leg

## Children aged 3 to 4 years old unable to do what they should do? What exercises and activities can help?

### Recommendations:

- Strengthening the postural / core muscle:



- ✓ Lie down, ask the children to hold feet with both hands, raise head, keep posture like a rock, hold for 10 seconds, repeat 3-5 times
- ✓ Stand and bend down with 2 hands on ground, keep the feet in place, crawl forward with both hands and then crawl back to the original position



- Strengthening the leg muscle:

- ✓ Stand on one leg with hand support on fixed furniture, repeatedly squat down and pick up small object on the ground
- ✓ Stand on one leg and hop forward with support on wall
- ✓ Stand on a low step, parent help to put small towels around the step on the floor, ask the children to sweep the towels toward step with 1 leg, take turn with both legs



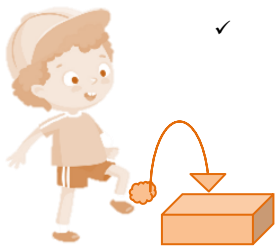
- ✓ Single leg stand on fixed low step, hop down from step with one hand support on wall



- Improving single-leg balance:

- ✓ Ask children to imitate different movements, such as yoga tree pose, swallow pose and other balancing poses

- ✓ Stand and put a bean bag or towel on top of one foot, lift up leg and put the bean bag or towel into the front basket.



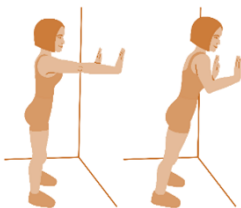
Parent can help to position the bean bag or small towel

- ✓ Stand with one foot stepped on plastic ball, maintain balance and play “High-five” game with parent

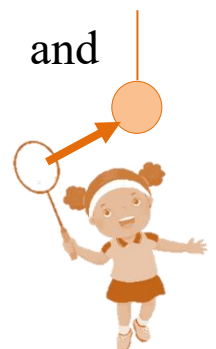


- Strengthening the arm muscle:

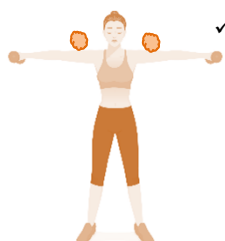
- ✓ Stand facing the wall, lean against the wall with 2 hands, repeat the push-ups movements by bending and straightening the elbows



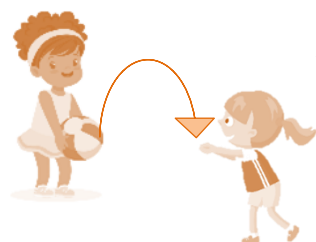
- ✓ Stand and hold a racket with one hand, hit a hanged balloon with the racket; repeat with the other hand



- ✓ Stand and hold a basket with both hands, catch bean bag or paper ball thrown to both sides of the body



- ✓ Stand and lift up both arms horizontally. Parents help to put two bean bags on children's arms, ask the children to walk and keep the bean bags from falling



- ✓ Catch the balloon that was being thrown from parent with both hands. Parents can gradually increase the distance or use rubber ball instead of balloon

## Children aged 5 to 6 years old unable to do what they should do? What exercises and activities can help?

### Recommendations:



#### ● Improving jumping skills:

- ✓ Stand and lower into squat position with both hands on floor. Thrust leg backward into a push up position. Jump both feet forward back to squat position. At last, jump up and raise hands over head
- ✓ Stand with the back against wall, take 3 steps forward. Slide down slowly until the hips are flexed 90°. Ask the child to hold for 10 seconds, repeat 3-5 times. To increase the difficulty, place one foot on a fixed step





- ✓ Hopscotch: stand on one leg, roll a dice. Jump to the same number pad according to the number of dice
- ✓ Jumping rope: Stand behind the rope, parents help to swing it like a big circle. Ask the children to skip the rope with both feet



### Improving upper limbs coordination:

- ✓ Stand and hold a square mat with both hands. Put a bean bag on the mat and ask the children to toss it up and get it back with the mat



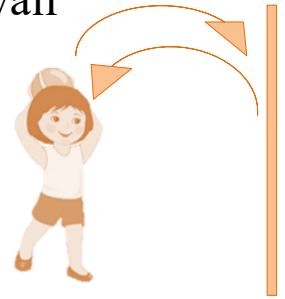
- ✓ Stand and throw a bean bag or towel up above the head. When the bean bag comes down, use both hands to catch it. To increase the difficulty, ask the children to clap hands before catching it

- ✓ Stand and take turn to hit the balloon up with both hands. Do not let the balloon touch the ground. Children can compete with parents and see who hit more



- ✓ Stand and hold a paper cup with the opening on top with a hand, and hold a ping pong ball with the other hand. Ask the children to release the ball and catch it with the cup once it re-bounces.

- ✓ Stand facing the wall, throw a rubber ball to wall. Catch it with both hands when it re-bounces from the wall



## **Precautions and safety issues for exercises:**

- Sufficient warm-up and cool-down exercises before and after exercises, e.g. aerobic exercises (such as jogging, stepping in place) and stretching exercises (such as muscle stretching of neck, shoulders, back and legs);
- The time between meals and exercises should not be too short (not less than 1 hour is recommended)
- Appropriate sports clothes and footwear should be worn, and accessories should not be worn;
- Ensure that the venue is not slippery, has enough space for activities, and no obstacles around to avoid accident;
- Do the exercises with your children;
- 10-15 repetitions for each set of exercises, repeat 2-3 cycles
- If the child has any discomfort, you should stop and let them rest

## What to consider when choosing the right sport activities for my child?

- Children's interest and preference should be considered.
- Choose to participate in younger group with a small group size.
- Praise for children's effort and own improvement, never compare with other children.
- In addition to physical training at home, you can also take your child to participate in outdoor physical activities, such as running, skipping rope, dancing, playing in the park, playing football, swimming etc., helping them to develop regular physical activity habit.



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Hong Kong Special Administrative Region

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