

## Physical Development in Middle Childhood

The following are general developmental milestones that often happen at the specified ages. In reality, children will reach these milestones at a variety of ages. While developmental milestone guides for early childhood are prevalent, this information is less accessible for middle childhood.

Age/Stage	Key Developments
5-6	<ul style="list-style-type: none"> <li>• Growth slows and remains steady – typical annual growth rates: 5-6cm in height and 2-3kg in weight</li> <li>• Gross and fine motor skills mature. Especially coordination, reactivity, attention, and cognition</li> <li>• Gross motor skills improve through involvement in play and sport</li> <li>• Bodies grow stronger, more coordinated, and agile</li> <li>• Immunity strengthened from natural development and completion of preschool immunisations</li> <li>• Loss of first baby teeth</li> <li>• Drawings become more detailed</li> <li>• Increased bilateral coordination enables skipping, balancing on one foot etc</li> <li>• Walk and jump backwards</li> <li>• Vocabulary comprises over 2,000 words</li> </ul>

Age/Stage	Key Developments
6-7	<ul style="list-style-type: none"> <li>• Muscles develop further and begin accumulating fat</li> <li>• Boys tend to have slightly more muscle than girls do, while girls tend to have more body fat than boys</li> <li>• Accurately colour in and cut out shapes</li> <li>• Able to run faster and longer due to increased lung capacity</li> <li>• First permanent molars arrive</li> <li>• Adrenarche begins (see page 15)</li> <li>• Maturing of the tube that connects the ear to the nose (the Eustachian tube) resulting in fewer ear infections</li> <li>• Can ride a bike without training wheels</li> </ul>
7-8	<ul style="list-style-type: none"> <li>• Brains reach their adult weight by age 7</li> <li>• The number of brain cells a person has (grey matter volume), representing the parts of the brain where processing occurs, peaks at age 7.</li> <li>• Connections within the brain, enabling communication between different parts of the brain and the body, continue to grow throughout middle childhood</li> <li>• Fine motor skills develop to the point of near maturity e.g. advances in their ability to write and draw etc</li> <li>• Similar athletic ability irrespective of gender until around age 8</li> <li>• Ability to throw and catch improves with increased hand-eye coordination</li> </ul>

Age/Stage	Key Developments
8-9	<ul style="list-style-type: none"> <li>Onset of puberty in girls from age 8 onwards: development of breasts and pubic hair, skin changes, increase in body fat in advance of a growth spurt, darkening of genitals</li> <li>Average onset of shortsightedness in children (child myopia)</li> </ul>
9-10	<ul style="list-style-type: none"> <li>Increased changes within the brain (synaptic pruning and myelination), particularly regarding emotional regulation and reward processing</li> <li>Onset of puberty in boys: increased genital size, development of pubic hair, voice deepening, production of sperm begins, increased body odour, facial hair develops</li> </ul>
10-11	<ul style="list-style-type: none"> <li>Children's development rates vary more widely – girls are likely to experience a growth spurt around age 10</li> <li>Typical annual growth rates may increase to up to 9cm in height during puberty</li> <li>Increased risk of injury during puberty due to bones growing faster than muscles</li> </ul>

Age/Stage	Key Developments
11-12	<ul style="list-style-type: none"> <li>Average peak of growth rate in terms of height occurs 2 years following the onset of puberty in girls. (For boys this occurs between 12-15 years)</li> <li>Menstruation typically occurs 2-2.5 years after breast development begins. Almost 50% of girls in New Zealand are likely to have begun menstruation prior to beginning secondary school</li> <li>Girls grow up to another 5cm following the beginning of menstruation and are physically fully grown around 2 years later</li> <li>Loss of all primary teeth by the age of 12</li> <li>Hand-eye coordination nearly fully mature</li> <li>Diminished coordination due to bones growing faster than muscles</li> <li>Boys may begin a growth spurt following the onset of puberty</li> </ul>

These milestones have been identified through a range of sources which can be found in the bibliography.



## Active Movement

Reporting by Sport New Zealand found that:

**In 2022, 94% of 5-11 year old tamariki had been physically active in play, exercise, active recreation, or sport at least once in the past week.**

The most common activities for tamariki were playing (running around, climbing trees, make believe), running, jogging or cross country, playing on the playground (jungle gym), swimming and playing games (four square, tag etc.).

Activity levels decreased during the COVID-19 pandemic, particularly in regard to organised activities, but have rebounded in 2022.

Children's participation in informal play has decreased from 85% in 2018 to 82% in 2022, predominantly due to older children aged 8-11 being less likely to play independently.

58% of tamariki surveyed would like to be more active, noting barriers such as busyness, preferring to do other things, the weather and affordability as factors impacting their activity levels.

Busyness was the primary barrier to increasing activity levels, with a quarter of tamariki noting being too busy as a barrier and almost 20% of tamariki indicating they couldn't fit being more active into the family's others activities.

59% of tamariki spent seven or more hours active per week, the recommended minimum according to the Ministry of Health Guidelines.

For the 2022 period, Sport New Zealand found that children average 11.7 hours of moderate-vigorous activity per week and participate in an average of 5.1 sports or activities per week.

Boys were generally more active than girls across a range of measures and experienced more noticeable declines in activity during the pandemic.

Reporting across the 2017-2019 period found that children from high-deprivation areas were less likely to meet the minimum activity recommendations and faced barriers to participation in organised activities such as affordability and accessibility.

The proportion of girls meeting minimum activity guidelines was the lowest to date in 2022 – only 54% of 5-7 year old girls and 55% of 8-11 year old girls meeting this target.

Children who spent at least seven hours active were found to have greater happiness levels than those who were less active.

For the 2022 period, Sport New Zealand found that children average 11.7 hours of moderate-vigorous activity per week and participate in an average of 5.1 sports or activities per week.

— Find out more about children's activity levels in Sport New Zealand's [Spotlight on Tamariki report](#) and the [Active NZ Changes in Participation 2022 report](#)

**“For older tamariki (aged 8 to 11) who would like to increase their participation, the main barriers to doing so are being too busy (25 percent), a preference for other activities (19 percent), the weather (19 percent), competing family priorities (19 percent) and the cost (18 percent).”** (Sport NZ, 2022, p.10)