

# How can Live 5-2-1-0 support better sleep?

Advice on healthy living for kids and parents can be confusing, and at times overwhelming. Live 5-2-1-0 simplifies this information into a comprehensive, evidence-based<sup>1</sup> message for school-aged children (aged 5-12 years) that's easy to learn, highlighting four key behaviours: eat at least 5 vegetables and fruits, have no more than 2 hours of screen time, have at least 1 hour of active play, and zero sugary drinks per day.

Live 5-2-1-0 provides clear daily goals for kids, setting them on the path to developing healthy habits for life. However, there are other lifestyle factors that are also important for a child's health and well-being, including the quality and quantity of their sleep.

**Sleep is important for a child's cognitive growth, and for their overall physical and mental health; sleep also contributes to a healthy body weight.<sup>2</sup> The Live 5-2-1-0 guidelines support good sleep habits, and in turn, sufficient restful sleep helps kids make healthy choices during the day.**

Children (aged 5-13 years) need 9 to 11 hours of uninterrupted sleep per night, with consistent bed and wake-up times, for optimal health benefits.<sup>3</sup>

## How can following the Live 5-2-1-0 guidelines help to improve sleep in children?

Research shows that:

### Limiting Screen Time

- ✓ Too much screen use (i.e. television, computer, mobile phone, video gaming device) in children has consistently been shown to delay bedtime and result in a shorter total sleep time.<sup>4</sup>
- ✓ Exposure to bright light from television or computer screens close to bedtime may interfere with the body's normal sleep-wake cycle by suppressing the production of the hormone melatonin.<sup>5</sup> Using screens near bedtime is also associated with poor sleep quality and daytime sleepiness.<sup>6</sup>
- ✓ Media use in the evenings, specifically playing computer games, can lead to overexcitement in children making it difficult to calm down and fall asleep.<sup>4</sup>

### Daily Physical Activity

- ✓ Regular physical activity has a positive effect on sleep quality, including improving the time spent asleep versus awake in bed, decreasing the number of times children wake up each night, and increasing how rested they feel the next day.<sup>7</sup>
- ✓ As adolescents' physical activity levels increase, their bedtimes become earlier<sup>8</sup> and less time is needed for them to fall asleep.<sup>9</sup>

### Healthy Food & Beverages

- ✓ Drinking caffeinated beverages can negatively affect children and adolescents' sleep by increasing the time it takes them to fall asleep and decreasing the amount and quality of sleep they do get.<sup>10</sup> Caffeine-containing drinks commonly consumed by children include pop, iced tea, and energy drinks.

## When kids get sufficient restful sleep at night, they are also better able to make healthy choices during the day. Research has shown that:

- When children don't get enough sleep they have less desirable health behaviours, including lower physical activity levels during the day and poorer diet quality.<sup>11</sup>
- Sleep patterns (bed and wake-up times) also appear to influence children's daytime activity patterns; children who go to bed early and wake up early tend to be more physically active and accumulate less screen time than children who go to bed late and wake up late in spite of similar total sleep times.<sup>12</sup>
- Insufficient sleep in children appears to be an independent risk factor for making poor dietary choices including consuming more sugar-sweetened beverages<sup>13</sup> and fewer servings of vegetables.<sup>14</sup>



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