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Understanding Myopia Development: A Comprehensive Overview

Myopia, commonly known as near-sightedness, is a visual condition in which distant objects appear blurry while close-up images are clear. While the likelihood of being born with myopia is quite low, it can develop during childhood or even in adulthood. In this article, we will explore the factors influencing myopia development and when it is most likely to occur.

**Myopia Development in Infancy**

At birth, the vast majority of babies (95.2%) are diagnosed with hyperopia, a condition where visual images are focused behind the retina, causing nearby objects to appear blurry [[1](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7001530/)]. However, during the early stages of an infant's development, hyperopia tends to decrease rapidly. This reduction is attributed to the growth of the axial length, which refers to the distance from the front to the back of the eye. For newborns, the average axial length is around 16.8mm, while adults typically have an axial length of 23.6mm [[2](https://pubmed.ncbi.nlm.nih.gov/4004614/)].

Within the first year, the axial length increases to approximately 20.6mm, and by the age of three, it reaches around 21.4mm [[3](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6520278/)]. This increase in axial length moves the focal point forward, transitioning towards normal vision or emmetropia. However, in some cases, the axial length continues to grow, shifting the focal point once again and leading to the development of myopia.

**Factors Influencing Myopia Development**

While myopia can develop in adulthood due to factors like excessive close work, it is more commonly observed during childhood. The age at which myopia manifests can vary from person to person, with several risk factors playing a role, such as:

* Parental Myopia: Children with myopic parents have a higher likelihood of developing myopia themselves.
* Close Work: Excessive time spent on activities that require close-up focus, such as reading or screen usage, can contribute to myopia development.
* Outdoor Time: Studies have shown that spending more time outdoors may reduce the risk of myopia development in children. An increase of 76 minutes of outdoor time per day has been associated with a 50% reduction in myopia incidence [[4](https://onlinelibrary.wiley.com/doi/full/10.1111/aos.13403)].

**Detecting Myopia in Childhood**

Childhood myopia typically starts to become apparent around the age of three, and parents or teachers may notice signs of vision problems between the ages of four and six. This highlights the importance of health and development reviews in the UK, which occur at one year old and again between the ages of two and two and a half. These reviews help identify potential vision problems at an early stage, well before formal vision screening at the age of four or five.

Myopia development can occur during childhood or adulthood and is influenced by various factors, including genetics, close work, and outdoor time. Early detection of myopia in childhood is crucial for timely intervention and treatment. Regular health and development reviews play a vital role in identifying potential vision issues in children at an early age. By being aware of the risk factors and encouraging outdoor activities, we can take proactive steps to promote eye health and reduce the prevalence of myopia in children of all ages.

**[Name of Business] is proud to support Myopia Focus**

Independent information on myopia and myopia management can be found on [myopiafocus.org](https://www.myopiafocus.org/what-is-childhood-myopia).

Please also consider signing this [change.org petition](https://chng.it/Ft25M75fpD) to get the NHS to recognise myopia as an ocular disease and improve funding for myopia management for children.

**Images:**

Please feel free to use the below image:

A child sitting at a table with glasses

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