

Can Eye Drops Cure NearSightedness?

“Doctor Kreda, what can I do to keep my child’s vision from getting worse?” “Can my child ever get rid of glasses?” “His glasses are changing so fast, how can I stop it?” These are questions parents commonly ask me. With a heavy heart, eye doctors have had to tell parents that there really is no magic cure for nearsightedness.



**CAN ATROPINE
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While there is no magic cure as yet, we now have a solution for the problem of increasing eye powers. A study published in 2015 showed that special eye drops called Atropine eye drops slowed down the progression of nearsightedness by about 50 percent with almost no side effects. Let’s see what these eye drops are all about and how they can help your child:

Atropine Eye Drops - What they are:

Atropine eye drops have been used since many years by eye doctors to make the eye’s pupil (black portion in the centre) bigger. This helps the doctor view the inside of your eye better. It also relaxes the eye’s focusing mechanism. Hence Atropine eye drops are used in eye conditions where the focusing muscles of the eye are inflamed and it hurts whenever the eye has to focus. However when used for these purposes, the concentration of the atropine used is 1%.

Lower Concentrations for NearSightedness:

Eye doctors have started using Atropine Eye Drops since the last few years in a diluted concentration of 0.01% as opposed to the usual 1%. Because of the lower concentrations used, the side effects found with regular 1% atropine eye drops are minimized. If you have had your eyes dilated for a detailed eye check earlier, you must be familiar with the side effects like blurry vision while reading and sensitivity to light. Fortunately, studies have found that with lower concentrations, there is little or no loss of near vision. Also, pupil dilation is less than a millimeter even after five years of use, which is quite insignificant.



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How does it work?

Scientists do not have a unanimous agreement on how atropine drops help control the progression of myopia. One of the explanations includes an effect of atropine on the white of the eye – the sclera. Cells of the sclera, like most other parts of our body undergo breakdown and re-formation continuously. This is called scleral remodelling.

Nearsightedness is caused due to increased remodelling of the sclera which results in exaggerated eye growth.

Certain cells (called the fibroblast cells) in the sclera have regions or receptors which respond specifically to a certain chemical. Atropine is believed to bind with these receptors, called muscarinic receptors. This binding causes an interference with the aforementioned scleral remodelling. Growth of the sclera is inhibited which in turn helps reduce myopia.

Is it worth it?

So will Atropine eye drops help your child get rid of his or her glasses? Unfortunately not. Some parents argue that if their kids still need to wear glasses, then what does it matter if they wear glasses of -2 power or -6? While it's true that your child will still need to wear glasses, what these drops do is reduce the progress of [myopia](#). This means that if your child's prescription went up in the last year or two, with the use of these drops, chances are the next year will not see such a drastic further increase.

People with severe nearsightedness have a greater risk of complications like detachment of the retina, degeneration of the macula, premature cataract and glaucoma. Reducing severe nearsightedness will lower your child's chances of suffering from these complications. Thus, the benefits do seem to be significant, especially now that these drops have been proven to be safe to use.

What does Dr. Kreda have to say about Atropine Eye Drops?

If you are wondering whether to go ahead with using Atropine Eye drops for your child's nearsightedness, do feel free to discuss this with Dr. Kreda. "I have been prescribing low concentration Atropine Eye Drops for years now. The results have been excellent and completely safe. The earlier we start treatment, the better the results. I would definitely advise the use of Atropine Eye Drops to slow the progress of Myopia."

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