How to Overcome

SHORT SIGHTEDNESS

Therapies, Exercises & Ideas

Easy Lifestyle Changes You Can Make To Stop Going Shortsighted!

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Part 1

Understanding Short Sightedness and Its Treatment
Welcome to “How to Overcome Short Sightedness”!

A Radical Introduction:

**Change your lifestyle and change your prescription.** Sounds simplistic or even far-fetched, but the overwhelming scientific evidence available today suggests that myopia or short sightedness is intimately tied with our lifestyles, especially a lifestyle of sustained and excessive near work. So, although you might think such a statement is right up there with palm or tea leaves reading, I would encourage you to keep an open mind and realize that professionals like me do not know all the answers!

This Manual has not been designed as a scientific reference! If you want hundreds of research papers, contact your local Optometry School, because this is not for you.

However, I firmly believe that if you or your children are short sighted and you want to stop the progression and protect them from being dependent on thick glasses, this book is definitely for you!

The first part of the book deals with the philosophy behind short sightedness, how it starts, what makes it grow and methods we can use to try and stop it, and possibly even reverse it. **If you are only interested in the exercises themselves, flip straight to Part 2 and start doing them.** However, many of you want to have an understanding of what is actually going on, how things happen and how professionals like me can try and stop short sightedness.

I am not a scientist. I am a clinician working in private practice and have been for over 25 years, in both general Optometry and Behavioural Optometry.
I wanted to produce a book which not only outlines my radical and not-so-short sighted view on myopia, but also provides a series of therapies that you can use at home as you have time to help reduce the onset and growth of short sightedness. There is enough scientific evidence to support much of what this book contains, but not all of it. I am firmly of the belief that it is better to do something as yet unproven by science than do nothing at all and lifelessly succumb to myopia.

In my opinion, your children and mine are worth being radical and taking a chance on!

Darin
The Short Sighted Epidemic

It is a recognized fact that the rates of short sightedness, or myopia, are increasing to epidemic proportions around the world today. In some of the worst affected countries such as Singapore, Hong Kong and Taiwan, up to 80% of young adults are short sighted, compared to only 25% of few decades previously. In Western countries the rates are lower but still increasing, with between 30 and 50% of young people going myopic.

So with so much myopia happening, surely we must ask ourselves...

**What could possibly be causing this mysterious epidemic?**

It is thought that the increase in myopia is being caused by a number of his factors, ranging from genetic to environmental. Certainly we have seen a significant change in the way young people interact with their environment. As a behavioural optometrist working in the field, I believe that it is no coincidence that we have witnessed the rise of computers, game consoles and personal information devices such as mobile phones at the same time as substantial increases in short sightedness.

I believe that there is a direct correlation between the increased use of computer and hand-held devices and short sightedness, but I am also realistic enough to recognize that kids are not going to stop playing computer games, studying, surfing the net or using Facebook. The answer is not to stop them doing the thing they love, but to be wise about their use, and protect their visual development as they do these things.
Myopia- The Start of Something BIG!

Optometrist commonly report that many children of myopic (or short sighted) parents find themselves going myopic between six and 20 years of age.

While a very small percentage of children are born with congenital myopia (1-2%), the most common onset for myopia is during youth, which can affect between 10 and 80% of the population.

Adult onset myopia is also a recognized phenomenon, affecting between 5 and 10% of the population and occurring either in the late 20s or around the time of needing reading glasses for presbyopia, typically between 40 and 45.
Expert’s Views on Myopia Progression

Increasing myopic prescriptions for children is an almost universally recognized phenomenon among optometrists in every country. However, you may be surprised to learn that there is a wide diversity when it comes to the methods of treatment.

The philosophy with which you approach the short sightedness progression can have a huge effect on the method of treatment, so it is worth taking some time to explore the various experts, their philosophies and how this affects the way eye care professionals attempt to treat myopia onset and progression in young people.

1. The Traditional View

Traditional optical wisdom suggests that myopia is primarily genetic and racial in origin, and therefore cannot be slowed, limited or reversed. Adhering to this philosophy means that the only valid mode of treatment for a young myope is the prescribing of a distance correction for constant wear use. This takes the form of a minus or concave lens.

I believe that eye care professionals who adhere to this philosophy and prescribed purely distance correction for myopes are adding to the rise of myopia progression in our society.

Unfortunately, the vast majority of optometrists and ophthalmologists fall into this group, but as a behavioural optometrist I have long since moved beyond this view in favour of a view that can at least attempt to limit the growth of myopia amongst our young.

2. The Corrective View

The corrective view of myopia is an extension of the traditional view, with the idea being to fully correct any distance refractive error using a minus lens, increasing the power and the
thickness of the lenses through the years until the mysterious growth of myopia eventually stops (hopefully) sometime in the mid-twenties.

While spectacle lenses are preferred for children, traditional contact lenses may be used as the child gets older. Once the prescription is stable they advocate the use of Lasik or similar refractive surgery to dispense with the need for glasses or contact lenses altogether.

So, dear myopes, just be content with getting thicker and thicker glasses until you hit your mid-twenties, then pay thousands of dollars and have laser refractive surgery... problem solved, right?

This view is fatalistic to say the least, providing no effort to try and limit the growth of myopia in its more manageable state (early in the progression). Following this philosophy provides a constant stream of refractive surgery patients and hundreds of thousands of dollars for ophthalmologists. They are happy, but are you happy feeding the myopia gorilla?

These two methods are simple, traditional and conservative, but increasingly parents are dissatisfied as they watch their child become totally reliant on glasses to see clearly and function. I reasoned, “Surely there must be a more effective way of trying to stop the growth of myopia before it becomes a major and debilitating problem for a child?”

3. The Behavioural View

Behavioural optometry has long been recognized as an effective way of treating children with learning difficulties, but the same principles which help a child to concentrate can also play a major role in reducing the growth and progression of myopia among susceptible children.

I am a behavioural optometrist and I make no excuses for being one! In my opinion, a pair of eyeballs do not roll into my practice to be tested, but rather an entire individual. This means that my testing of the eyes and of myopia is done within the context of the entire
person, including all factors which could possibly influence the growth of myopia, from posture to genetics, from nutrition to environment.

Using this very holistic viewpoint I have successfully treated myopia among children and adolescents for many years. In fact, I have around 80 to 90% success rate in stopping the progression of myopia using my techniques and I’m able to reverse the myopia in some cases. I am constantly researching new methods to try and limit the myopia epidemic among my patients.

So according to the behavioural optometry philosophy, short sightedness is an adaptive response to help a child cope more efficiently with sustained near work. As most myopes do their near work easily and for as long as they need, the adaptive changes clearly work well. There’s generally no pain, no discomfort and they tend to be good students. However, there is a compromise to be made… the loss of distance acuity, and an increasing dependence on glasses to see and function effectively.

Viewing myopia as the result of a process of adaptation helps behavioural optometrists understand the factors that have caused the adaption changes and move towards limiting them. If the intensity of near work and the duration of the task are great enough, some form of adaptation is likely, and if the genetics and environment are right, myopia is the result.

Reducing the stress of intense near work, and/or making the visual system more flexible and accommodating of these changes is the best form of myopia control I know of, and that is what I pursue with my myopic patients.
Who Can We Blame for Short Sightedness?

Most experts believe that there is no single cause for the progression of myopia but rather a number of causes, often including a combination of nature and nurture, and almost always involving large amounts of sustained near focussing.

It’s all in the Genes, Genius!

It is long been recognized that there is a genetic involvement in the onset of myopia. If one or both parents are short sighted, there is a statistically far higher probability that a child will also develop myopia.

There is also a racial genetic factor, with a far higher prevalence of myopia occurring amongst Japanese, Chinese and Korean children compared to their counterparts in Europe, the USA, Australia or Africa.

Increased levels of education, income and even urbanization are also commonly recognized contributors to a dramatic increase in myopia among children and adolescents.

It has been shown, for example, that there is a much higher level of myopia amongst children living in big cities rather than children living in rural environments. So city kids are generally more myopic than country kids, and inner city kids are more so than suburban ones! This is bad news for millions of kids living in Asia’s many cities!

Is the Environment That Friendly?

We are supposed to be environmentally friendly in our world today, but is the environment being friendly back at us? The contribution of excessive amounts of near work, including reading and computers has also long been recognized as a significant factor (these are called environmental factors). Latest studies also suggest that time watching TV, time spent at the
computer, lighting, living environment and even the amount of time spent indoors rather than outdoors can all contribute to the increase in myopia we see today.

Nutrition could also be another piece of the puzzle, with a biologist in Colorado suggesting that myopia may be triggered by excessive consumption of refined carbohydrates, especially sugars. Other studies have supported the effect of insulin and high blood sugar levels on high growth of the eyeball itself, a known contributing factor to myopia progression.

It is likely that all of the above-mentioned factors play some role in the increase we are currently seeing of myopia among young people in our society. Many of these factors overlap and possibly add to each other in their effect.

So in my opinion it certainly is no accident that the current jump in the incidence and growth of myopia among the young is tied in with and even directly attributable to our current Western lifestyle. The environmental factors are not so friendly!

With children spending so much time these days playing with iPods, iPhones, Androids, iPads, computers and games consoles such as the Nintendo DS, Xbox or PlayStation as well as spending so little time outdoors, it seems to fit with what the researchers are telling us.

Add to this a sedentary lifestyle, highly processed foods and an increasingly urbanized environment, plus genetics and racial factors, and you have a potent mix of causative agents which could easily be responsible for the current trends.
Treat Myopia? Are You in for a Treat!

Many studies have shown that large myopes have relatively elongated eyes compared to other members of the population. Myopia, or short sightedness, occurs when distant objects are blurred because the light from a distant object is focused in front of the retina.

This means that close objects are clear but distant objects are blurry, however focusing or accommodating the eye muscles results in more distance blur rather than relieving the blur.

The only way to make distant objects clear again is to place a corrective lens in front of the eye which focuses the light from a distant object back onto the retina. The lens used for this purpose is a minus or concave lens.

Recognizing the fact that myopic eyeballs are longer than other eyeballs is a bit like saying the cause of high blood pressure is constricted blood vessels. We know this is the case, but this is the effect rather than the actual cause, describing the fact that the lumen or hole in the middle of the blood vessels is more constricted amongst those with higher blood pressure. The causes of high blood pressure are actually things like stress, smoking, fatty foods, lack of exercise and other factors, all of which contribute to a build-up of plaque inside blood vessels and a thickening of the walls, thereby causing a smaller lumen.

I believe that there are a number of causative factors which contribute to the increase in myopia progression among the young. It is not simply a random or haphazard increase in the length of an eyeball that causes the phenomenon. The length increase comes as a result of other things, and usually is at the end of a whole sequence of contributing factors. So how can we treat all of the causes of short sightedness?

Let’s consider them one by one and have a frank discussion about how we can treat each one...
1. Genetics

The children of myopic parents, especially those of Asian descent, certainly show a marked increase in the onset and progression of myopia. Obviously we cannot treat this, but we must bear it in mind as we look at possible treatments for the condition. We might suggest that short sighted people never have children, but I am sure love would have something to say about that!

The genetic factor is a predisposition, not an absolute! This means myopic parents are more likely to have myopic children, but if we can change the environmental factors we can stop the genes from manifesting. So, go ahead and fall in love with another short sighted person, and we will look at other ways to stop the problem!

2. Near Work

This is a big one! Increased education levels and large amounts of close work can combine with genetic factors to cause ever increasing myopia. Even pop culture tells us this, with both the bookworm and nerds or computer geeks portrayed as wearing glasses. This view is also supported by correlating the increase in close work done by today's generation with the comparable increase in myopia we are seeing worldwide.

I believe this comes about because the stress on our visual systems to do excessive amounts of close work causes highly adaptive individuals to come up with a way of making near work less stressful and thereby more sustainable... and one possible way is going short sighted!

So the child’s focus starts to spasm and stays in the ”on” position when they look up from close work, failing to relax fully to distance clarity. This is commonly reported in the months leading up to myopia onset as a transient phenomenon which comes and goes, more so when tired. This spasm in the focus is easily measured, frequently reported and always precedes any elongation of the eyeball.

All it takes for myopia to happen is for this occasional distance blur to become permanent!
Therefore it stands to reason that if we could reduce the amount of near stress a child is undergoing we should be able to reduce the progression of myopia. This point of view has been supported by the treatment methods I’ve adopted in my practice which yield outstanding results for reducing myopia progression, especially in the early stages.

If a child is heading towards myopia, I will often use support lenses (low strength reading glasses) to great effect, stopping short sightedness before it actually begins.

Also, we can change how children are doing near work. I call this “Visual Hygiene” and have included a list of steps you can take to limit short sightedness. For example, I recommend that children hold their book no closer than 30 cm from their nose and when watching TV the minimum recommended distance is 3 metres.

3. Bifocal Lenses

The use of the right type of spectacle lenses or contact lenses is absolutely essential in myopia control. In my practice, I never prescribe single vision distance glasses for children or adolescents because, while they improve distance vision, they make the progression of short sightedness increase!

Bifocal lenses are my weapon of choice and they can have a significant effect on myopia changes, as long as they are prescribed correctly by a competent practitioner. They need to be fitted higher than bifocals are in adults to have the desired effect. Fitted higher, they make the child use the near segments, and this is what we want.

Multifocals, while favoured by some optometrists because they are more expensive and the profit margins are greater, have been shown to be significantly less effective in myopia control. I believe this is because a young person can look into the top part of the multifocal for reading or computers and accommodate to get it clear. Frequently they do not use the reading area properly.
I have had far greater success with bifocals as opposed to multifocals because there is a clear line for the reading segment and a child easily knows whether they are above the line for distance or below the line for reading and computers. Sometimes simplest is best!

Recently, specialized single vision lenses such as Zeiss’s Myovision hold some promise, but I have not found that the added cost involved with these special lenses yields significantly better results than a well fitted, simple, inexpensive bifocal lens. Cheaper and better, so why wouldn’t you choose that!

4. Contact Lenses

Traditional spherical contact lenses have the effect of increasing myopia growth rather than reducing it and should be avoided at all costs! However, latest studies have shown that the use of certain types of multifocal soft contact lenses can provide a sensational success rate in stopping the progression of myopia!

I have been using these for a few years now and am really impressed! It is felt that the mid-peripheral blur provided by these types of contact lenses is the causative agent in stopping the progression of myopia. I love them and I personally have seen great success using these types of lenses in my practice. By success, I am talking about high myopes who were really increasing dramatically (say -6.50, increasing by -1.00 per year for 3 years straight) being totally stable after 4 years (that is, stopped at -6.50 still).

Using hard contact lenses to reshape the front of the eye (orthokeratology) has also provided good results with once again the mid-peripheral blur resulting from the overnight wear of the contact lenses. Expensive yet effective, but I have to admit it’s the soft multifocals that are the most impressive, most effective and least expensive option!

5. Lighting

Reading in reduced light conditions is also another contributing factor, so we recommend that adequate lighting is used at all times when doing close work. I also recommend that
background illumination in the room should be maintained, so children should avoid reading by torch light or using a computer or television in a darkened room.

You are best served to keep the room lights on and the contrast between the screen and the rest of the room in a more reasonable proportion.

6. Indoors Verses Outdoors

The amount of time a child spends outdoors appears to be inversely proportional to the growth of myopia.

Therefore, we recommend that a minimum of one hour a day be spent outdoors and during these times the child should ideally be actively engaged in distance vision activities such as sports, walking or running.

Body movement and the use of our muscles, such as occurs during sports like tennis, soccer and even Tai Chi, may also contribute to reducing the growth of myopia.

7. Frequent Breaks

Taking breaks is an important part of myopia control because anything that breaks sustained focus on near activities will certainly have an effect on reducing myopia growth.

I always recommend a five-minute break every half hour and for the child to stand up, stretch and walk around during the five minutes, preferably outside. If you live in an apartment, go to the window and look as far as you can towards the horizon. If you can get outside, breathe fresh air and experience some sunshine it is even better!

8. Nutrition
A healthy diet is also a contributing factor in reducing myopia growth in children. Avoiding high carbohydrate foods, junk food and especially sugar should be part of that treatment, and replacing sodas or soft drinks with water is a great way to immediately reduce a child’s sugar intake.

9. Posture

It has long been recognized that myopes frequently undergo changes in posture, with curled shoulders and sunken chests being the most commonly observed changes. It is easy and inexpensive to incorporate postural exercises into other modes of therapy. Chiropractors are starting to see these postural changes, so I believe we have a role co-managing young short sighted patients.

10. Vision Therapy

A vision therapy program specifically designed to reduce myopia growth can also make a difference if done correctly. The therapy program I am including later in the book has been put together to help you achieve this, and keeping to the schedule that I lay out should have the effect of reducing focus spasms and stress when reading or using computers, thereby reducing or even reversing myopia.

Some of the exercises may seem weird, and some are a bit dull. However, if the goal here is to reduce the growth of short sight or even reverse it, I am keen to leave no stone unturned in my pursuit of the goal! Again, it is better to do something, even if it is still unproven, than to sit by and rack up stronger lenses in front of your child’s eyes.

But before we consider the exercises themselves, let’s take some time out to think about diet. After all, as in most human conditions, garbage in equals garbage out!
Diet and Myopia Control

Just as I am not a scientist, I am also not a nutritionist... and I love burgers and fries!

But I simply believe that, if you feed your body the wrong things, you will finish in a pickle (and maybe a special sauce too!) With millions of words written about the eye and nutrition, I cannot hope to do it justice, but I want to take a few moments to pick the choicest morsels out of the whole nutrition debate, and give you food for thought about diet and the onset of myopia!

The underlying cause of myopia appears to be multifaceted (Ong and Ciuffreda, 1997). This means that what we put into our mouths can affect all of our bodies, including the eyes.

Chemicals which affect collagen formation, the clarity of the optical structures, strength and muscle tone, circulation and nerve function are sure to play some role in myopia, as they do in all eye conditions. If nutrient levels are deficient, the strength and elasticity of ocular tissues may be compromised, and this may add to the onset and development of myopia.

Eat, Drink For Tomorrow We Diet!

To make things simple, a good, healthy diet will increase the chances you have of lenses and vision therapy working well. The basic protocol is

1. The Right Diet
2. The Right Supplements
3. The Right Vision Therapy
1. The Right Diet

Step 1, get rid of junk food. That’s right, those burgers, fries, chocolate, fatty acids, you know the sort of thing I mean... whatever your favourite poison is!

Step 2, get rid of the junk food you rationalized out of the above list and kept, saying, “It’s not so bad!”

Simply put, you need to eat wholesome foods and avoid anything that you appear to be allergic to. Remember, you may be allergic to really good foods, and have to avoid them. I am allergic to shellfish... I like prawns, but I do not like anaphylaxis, so I avoid them. So, if you feel you react to something, be it fish, milk, nuts, tomatoes or even wine or chocolate, it makes sense to avoid them!

So what is healthy eating? If you really want to know, talk to a nutritionist, but I can at least point you in the right direction, and steer you away from the things you do not want to eat...

Fruit:

Most fruit is good for you, although they may be high in sugars. You can eat them, have them on cereal or juice them. Dried fruit is not good, because that is super high in the sugars you do not want. And a Cherry Ripe chocolate bar is NOT considered a healthy serve of fruit!

Nuts:

If you are not allergic, nuts can be great, especially if they are raw. Most nuts are good, but peanuts are not favoured by experts. So peanut butter cups are right out, OK?

Vegetables:

Most vegetables are good for you, but invariably we want the quick easy methods. So, buy a steamer if you do not have one and steam the vegetables. Don’t boil them (because you boil much of the goodness away), and avoid the dreaded microwave. There is a huge variety of vegies, and anything green seems to be worthwhile.
Salads:

OK, often pretty dull to eat, but very healthy. I like mine spiced up a bit with avocado, broccoli or snow peas, or a bit of egg or chicken.

Dairy:

This is one area to be cautious about because many people are allergic to dairy. If you find yourself on the toilet an hour after a milkshake, this may be you! Avoid milk, mayo and ice cream. Cheese in moderation may be OK. Yoghurt with acidophilus and no sugar is probably the best of dairy for you.

Meat:

Most meats are OK, especially in moderation. Yes, surprize, surprize, you don’t have to become a vegetarian! I only ever eat meat from vegetarian cows, so perhaps that makes me kind of a... no, forget it. Just go for grain fed or free range if you can, and avoid any meats that you think might have added hormones and chemicals, especially chicken. Fish with scales are best, and the fresher the better (smoked is not as good).

Breads and Grains:

If you are not allergic, grains can be great fibre, but I would tend to limit them. Try to vary them as well, using wheat, barley, rice, oats and so on. Avoid white bread, and go for full grain if you can. Avoid cereals for breakfast with high sugar content.

Beverages:

Oh no, I hate this one... you know what’s coming, don’t you? Avoid... coffee! Ouch! Tea is great (lots of antioxidants); herbal teas are great too, as are coffee substitutes. Alcohol is definitely on the not recommended list as it dehydrates tissues, so avoid that. Also avoid sodas, regular and diet and anything artificially sweetened. OK, do you hate me now?

Hypoglycaemia and Diabetes

Hypoglycaemia or diabetes can cause fluctuation in the permeability of the crystalline lens of the eye, thereby making the eye relatively more myopic. If you have these conditions, or even suspect you do, see your doctor and make sure your blood glucose levels are controlled.

Diet changes are lifestyle changes, and take a long time to slowly implement. Cold Turkey is not the way to go, especially for things like coffee, so take your time and gradually change the way you are eating. Good food in will help your control of myopia, as will the supplements and especially the vision therapy.
2. Supplements

Eating the right food helps, but you may find that you need to take supplements to add extra things that your eyes need to help them combat myopia.

Supplements that are directly targeting the eye tissues are great. My favourite is Ultravision, which features selenium for the lens and lutein for the retina, as well as a host of antioxidants, which improve blood flow in the eye. Others such as Macuvision, Optivision and the like are also good.

Vitamins, especially Vitamins A, D3, C, E, B1 and B2 are very beneficial, as is niacin and biotin. Minerals are also suggested, especially the antioxidants, so calcium, magnesium, manganese, selenium, chromium and zinc are excellent. Phytonutirents can also be beneficial.

So what does this mean in plain English? It means that the right multivitamin can have a great effect on your myopia control, as can a number of herbs such as bilberry, garlic, cayenne and ginger. Talk to a nutritionist or herbalist about which ones are right for you, because, as long as you are not allergic to them, most of them can cause you not harm but only do good.

Remember, however, that these are supplements, not replacements for a good diet. It is not good taking loads of supplements, then pigging out on burgers, fries, fried chicken and ice cream! You need to combine both to get the optimum situation to help your myopia.

3. Vision Therapy

The remained of this book is going to concern the exercises and therapies you can use to limit myopia, and even reverse it. So eat well, and get ready for some serious work...
Don’t Stress Out About Short Sightedness!

Myopia control is about preventing, holding steady or even reducing short sightedness. It involves changing and improving the patterns and habits that affect your vision, with a view to helping you achieve clearer sight and a more comfortable and efficient visual system.

Let me state at the outset, anything you can do that reduces general tension and stress in your life will help you to control the growth of your myopia. General tension transfers to the posturing of the visual system, because your eyes are not detached from you but are attached to you and your brain! Many of the exercises in our therapy program are designed to reduce stress, both visual stress and general stress.

Monitoring the Situation:

For myopia prevention and control, it is strongly recommended that you have more frequent eye examinations. This allows the optometrist to detect early changes and move to limit them. Do not rely on how you feel, or even how clear your distance vision is, because we are able to detect early warning signals even before any prescription change happens.

While I recommend most children’s eyes be examined yearly, any of my patients attempting to control myopia are seen at six monthly intervals, and some even at three monthly intervals. In myopia, early detection and prevention is far better than thicker lenses!

Glasses Prescriptions... They’re Not All Bad!

In my practice glasses are most often prescribed for myopia reduction and prevention as either a reading lens, or reading portion to a distance lens, such as a bifocal. I do not recommend spectacle multifocals for myopia control, and recent studies have supported this.
The reading prescription, whether as reading glasses or bifocal glasses, should be used for all reading writing and computer tasks. They should be used whether the patient feels they help or not, because experience has shown me that patients diagnosing themselves and saying they do not need their reading lenses (because they read well) is a sure prescription for increasing the distance blur, and hence myopia.

These lenses are designed to reduce the stress of aligning and focusing the eyes for close work and enable you to read or work with increased efficiency. Many patients report that they can concentrate longer, absorb more information, comprehend reading and generally perform better at all of their near tasks when wearing the lenses.

I know you want to throw away all glasses, but glasses are not the enemy here... short sightedness is! Near glasses can be your friend and ally in your fight against distance glasses, so use them properly and reap the rewards.

Make a Stand on the Right Posture

Stress affects your muscles and hence your posture. But before you get all bent over and intense about it, the great news is we can easily change your posture!

The way you stand or sit can have a bearing on the way your visual system postures, and hence myopia development. Practice the habit of standing and sitting tall! Imagine that you are suspended from a string attached to the top of your head, so stand or sit with your spine erect and your weight balanced directly under your body.

Studies have shown that proper body alignment reduces postural stress and expands your visual space so that you can actually see more in front of you as well is more in your peripheral vision. Our therapy contains postural exercises, and we have some success in changing the posture of some patients, thereby reducing the tension on the back, neck and visual systems.
Peripheral Awareness: Something Out of Left Field?

When a visual system undergoes stress, there is a strong tendency to close down peripheral awareness and concentrating on small details at the centre of our vision. As part of this therapy you will be encouraged to practice being more aware of everything around you. Increasing peripheral awareness not only expands your visual field, but it also enhances your central fusional field, which is where your two eyes see simultaneously, improving the workings of the two eyes together.

Good peripheral vision is a key element in stress-free seeing and myopia control. Your peripheral vision orientates you in space, and tells you where things are, whereas your central vision identifies what they are. For comfortable vision these two systems need to coordinate correctly. Your central vision takes the lead when you are doing activities like reading or following a moving target, but your peripheral vision takes charge when you change fixation, such as when you look from the end of one line to the beginning of the next in a book. Driving relies on your peripheral vision as well.

Developing habitual peripheral awareness is not just about what you can see when you think about it, but about what information your visual system takes in when you are not directly thinking about it. Many of the exercises in this program are designed to enhance your peripheral awareness, especially subconsciously so that you are aware of your peripheral vision automatically without thinking about it.

It’s Hard to Use Soft Focus

There is a very strong tendency for short sighted people to stare and “bore in” on a specific target. Part of reducing the stress involved with being a myope is teaching you to look softly with relaxed focus and take in larger chunks of space with every look. If you practice looking towards rather than at objects, you will be training yourself in soft focus.

Myopic people tend to want to see all the detail in sharp clarity, especially at near. This creates visual tension and enhances the myopic process. What you do not realize is that the brain has an incredible ability to interpret indistinct images, and hence does not require a sharp, ultra-clear focus to identify objects, words or symbols.
Relaxed focus allows you to take in more information in less detail, and can enhance reading speed, comprehension and peripheral awareness. And it can help reduce myopia too!

It Happens in the Blink of an Eye!

As mentioned above, there is a very strong tendency among short sighted people to stare. Part of this therapy program is aimed at encouraging full and normal blinking, because efficient blinking not only washes the eyes with fresh, oxygenated tears and prevents them from drying out (especially important if you wear contact lenses), but it also reduces the tension on the visual system.

As tension increases we have a strong tendency to stare, and this is counterproductive for our myopia control. If you watch a child playing an intense computer game, you will notice that they stare and very rarely blink. This is not healthy for our eyes, and encourages the growth of myopia.

So, as you do these exercises and use your eyes in general...

Beware the Stare!

Dude, Just Relax!

Our modern lifestyle places huge demands on our visual system. We are doing far more sustained close work than we have ever done in human history, with computers, games, iPhone's, texting, iPods, etc.

Looking up and away from a sustained near tasks frequently to relax your focusing muscles is an important habit in myopia control. Remind yourself to look up and away frequently, making a distant object clear for a few seconds before returning to your near task.
Getting up and walking away from a near task is also important. By taking frequent breaks, you can learn to keep your body relaxed, your posture relaxed and hence your visual system more relaxed. Monitor your body for muscle tension, especially your neck and shoulders, and massage them frequently if necessary.

Short sighted people tend to carry tension not only in the muscles of their eyes, but also in the neck and shoulders, and sometimes their entire body. So when you feel stressed or under tension, stretch your body, roll your head and shoulders, rub the back of your neck along each side of your vertebrae and generally loosen the muscles of your back and neck.

Keep on Breathing

Stop breathing and you will die! We all know this, but I am not suggesting you smother yourself!

You need to be aware of your breathing, especially when doing important and stressful visual tasks. Visual stress often induces shallow breathing and even holding your breath, and if you find yourself holding your breath frequently you may need to practice counting your breaths while doing rhythmic activity such as walking, exercising or your therapy activities. Counting your breaths during these activities will improve your general breathing habits.

To monitor if you are breathing correctly, place your hand on your abdomen and feel your diaphragm move out when you breathe in. If your shoulders lift when you take a deep breath, this indicates that you are breathing too shallowly and you may need to practice learning how to breathe more deeply. Good posture enhances proper breathing, so monitor your breathing as you do near tasks and make sure that you are not holding your breath.
Mind Over Matter?

Believe it or not, you do have some control over distance focus and can make yourself see far objects more clearly! Is this mind over matter or simply exploring something that you can actually do but do not realize it?

Practice the deep wink and quick wink techniques in our therapy, because these will help you to learn how to clear your distance vision more effectively. When you “suck back” on your eyes, it makes the focusing muscles open up in much the same way stretching your mouth wide can open your vocal cords. This flattens your crystalline lens and allows clearer distance focus that you probably did not know you had.

Prolonged looking at close work makes focus muscles tighten, so looking up and getting distance objects clear is an essential part of myopia control.

Many of our patients are under corrected for the distance site, meaning that the distance portions of their bifocals or contact lenses are slightly blurred. Our experience is that over time the slightly blurry distance portion of the glasses becomes clearer, so remember that you can probably see clearer than you realize!

A Bad Time for Myopia:

When you are experiencing a period of illness, there is a great tendency to sit in bed or on the computer for long periods of time. Myopia may be induced or increased when your body is in a weakened condition, so if you spend long hours doing intense close work in poor illumination with poor posture that enhances visual stress, and do this all when you are physically weakest, you may worsen your myopic condition. If you are sick, watching TV at the distance of 4 m or more is the recommended alternative.

Now let’s look at the therapies, exercises and recommendations...
Part 2

Therapies and Exercises
How to Use This Part of the Book...

We will be considering 3 types of activities and they need to be applied in 3 distinct ways. Part of the power of this book lies not so much in the therapies themselves, but in the ability to systematically implement them and bring about the lifestyle changes needed for success.

Many previously published books list great swathes of exercises, but the vast majority of people fail to actually do them for any length of time. That is where a systematic approach, while not perfect, can hold the key to long lasting changes in your visual stress and hence short sightedness.

The types of therapies we consider are...

**Type 1: Lifestyle Changes**

This involves implementing changes in the way you use your eyes every day.

**Type 2: Simple Exercises you can incorporate into your day-to-day life**

This involves simple procedures using little or no equipment, which you can perform many times during your day.

**Type 3: Specific Exercises that you need to set time aside to do.**

These are more complex exercises which may involve charts and equipment, and which cannot be done during your normal working day. Hence, specific times need to be set aside for these exercises to be done, and we will be assigning exercises for morning and afternoon sessions. These should last a maximum of 15-20 minutes only.
SUMMARY OF MYOPIA REDUCTION TASKS

Type 1: Lifestyle Changes

VISUAL HYGIENE

SUGGESTIONS FOR GENERAL STRESS AND TENSION REDUCTION

BLINK AND BREATHE

Type 2: Simple Exercises You Can Incorporate Into your Day

PALMING

EYE STRETCHES

SHOULDER ROTATIONS

MASSAGING THE EYEBALL

DEEP WINK

QUICK WINK

PERIPHERAL HAND AWARENESS

SWINGING

ACUPRESSURE POINTS

FACIAL MASSAGE
Type 3: Specific Exercises You Need to Set Time Aside to Do

**Block 1:**
- NEAR FAR BOOK ROCK
- RELAX AND CLEAR
- BODY ROCK

**Block 2:**
- CONVERGENCE EXERCISES
- STAR EYE MOVEMENTS
- CLENCHING ACUITY

**Block 3:**
- BEADS AND STRING
- NOSE PAINTING WITH MR SQUIGGLE
- WHITEBOARD ACTIVITIES

**Block 4:**
- SPIRAL IMAGERY
- VISUAL SCANNING
- PERIPHERAL CARD

**Block 5:**
- RELAX WHILE CLEARING DETAILS
- CHART TO BOOK FIXATION
- THUMB BLOCKING

Optional Exercise for Myopic Astigmatism:

**MYOPIC ASTIGMATISM**
TYPE 1 EXERCISES: LIFESTYLE CHANGES

These ideas must be incorporated into your general lifestyle in order to obtain a positive result from the therapies. They do not involve doing specific activities, but rather revolve around changing the way you currently use your eyes and in particular, how you approach your near work, including reading books, studying, computer work and playing screen based games.

They hold true for all near activities which place your visual system under stress, including things you do for leisure such as playing computer games, texting and being on Facebook. This may be leisure for your brain, but for your eyes and the entire visual system they are often extremely stressful, especially if you get passionately involved!

So, consider the next 3 “therapies” not as stand-alone exercises, but as changes you need to incorporate into your lifestyle in order to relieve some of the pressure which drives myopia. Do whatever you need to do in order to make these suggestions a reality in your everyday life, whether at work, in the home or playing around.
Visual hygiene is a series of recommended habits and behaviours designed to reduce the tension and stress on the visual system and thereby controlled myopia. Use them effectively as part of your myopia reduction therapy...

1. All near point activity, including reading, computers, computer games and texting, should be done at the Harmon distance or slightly further. The Harmon distance varies from person to person, but is standardized as the distance from the middle knuckle to the tip of the elbow.

2. When doing any near activity, be aware of the space between yourself and the page, and also be aware of things in the rest of the room. Keep your peripheral vision open!

3. When reading or using computers, look up from the task at a specific distant object and let the details of this object come into focus. Do this for every page, or once every two minutes. Doing this frequently will soon become an automatic habit.

4. When studying, place a bookmark three or four pages ahead. Each time you reach the bookmark, get up, walk away and move around for at least a minute, stretching the muscles of your neck and back and getting distant objects clear.

5. When using the computer or reading, make sure you take a full 5 minute break every half hour. During this break you need to stand up, walk around and stretch the muscles in your neck and back, massaging them and around your eyes as necessary. This will improve your productivity, and increase the time for which you can do sustained near tasks effectively.

6. Watch your posture. Set up right, and practice holding your back more upright while you read and write. Avoid reading while lying on your stomach on the floor. Avoid reading in bed unless sitting reasonably upright. Do not slouch or recline back in the chair when reading or using a computer.

7. Provide adequate general illumination as well as good central information on the near task. The illumination on the task should be about three times that of the surrounding background, and this is especially important for computer screens. Do not use your computer, phone or other self-illuminated near the vice in a darkened room.
8. When reading, tilt the book up at around 20°. When using a laptop, set the screen at the slightly flatter level than you may be used to.

9. Always sit at least 4 m from the TV, making sure that you maintain good posture even if you are relaxing.

10. In the car, avoid reading and other near centred tasks such as iPods, phones, etc. Make sure you look out of the car at distant objects and sites for interest and identification, rather than spending long periods of time focusing at near.

11. Encourage outdoor sports and play activities, especially those that require distance vision, such as soccer, tennis and cricket. When playing outdoors, make sure that when you look at a distance object you are aware of other things in your peripheral vision as well.

12. Walk with your head up and your eyes wide open. Make sure you look towards objects, not at objects.
SUGGESTIONS FOR GENERAL STRESS AND TENSION REDUCTION

1. Organize your life: Differentiate between essential and nonessential obligations, and decide to do the essential and avoid the nonessential. Do not fall victim to what is urgent, but pick out what is essential and important rather than what is urgent, and concentrate on these.

2. Accept who you are, and do not be hard on yourself. Learning contentment in your situation can release a lot of tension. Avoid thinking of the past and avoid worrying about the future. Most of what we worry about never comes to pass anyway. Learn to live more in the moment. Ask yourself the question, “100 years from now, will this really matter?”

3. Keep a notepad beside you and as things pop into your mind, write them down. Once they are written you know that you will eventually address that situation, so do not waste time now worrying about it now!

4. Change how you view leisure! Don’t try to make your mind or your body work all the time. If you have work to do, set yourself a task to aim at but also give yourself a reward, preferably a period of rest and recovery. An archer strikes a target partially by pulling and partially by letting go, so learn to do the same.

5. Try to see the world from a viewpoint other than your own. Monitor how often you use the word “I”, and if you find yourself using it a lot, try to see your situations as if they are a parade going by and you are a spectator, not a marcher. Stepping back and looking at the situation from an external point of view can relieve a huge amount of tension.

6. When you relax after a period of work, make sure you relax! Playing a tense computer game might be fun, but it is not relaxing, either for your brain or for your vision. Watch a movie (preferably a comedy, not a thriller and definitely not a horror movie!), sit and talk with friends, pray or go for a walk.

7. All tension can be effectively combated by a change of mental attitude plus relaxation.
**Background:**

Most myopes concentrate for too long and are guilty of staring at their task. Staring is an enemy and comes about as an attempt to combat the basic bad habit of poor visual and mental attention. Being aware of staring is difficult, but most often when we stare we hold our breath. Therefore, it is easier to detect breath holding than staring, so combining the two in this exercise is very powerful.

**A. Be Aware of the Stare**

1. Staring and breath holding usually occur when you concentrate on a task, so be aware of both holding your breath and staring with your eyes.

2. Move your eyes back and forth between the right and left ends of this line of print. Tap your foot each time and try to make one movement per second or faster. Do this for 1 minute.

3. Did you slow or hold your breath to perform this task? Did you stare? You probably did both as you strained to do this task. See how embedded this response is! You don’t usually feel it at all until we start mentioning it!

4. Think about how much more you strain when you perform even more complicated tasks. This is the stare, and it is the enemy!

5. Now you know what it feels like, try to detect any times during the day that you stare and/or hold your breath. Can you teach yourself to relax more?

**B. Blink and Breath:**

1. Set yourself the challenge that you will blink your eyes rapidly then take 2 long, deep breaths every time you detect yourself staring or holding your breath.

2. Don’t criticize yourself, don’t analyse and don’t even think about it. Just stop, rapid blink several times and take 2 long, deep breaths.
3. Do this for the rest of your life! It will soon become an automatic response, a new habit, and it is a change of awareness rather than something that takes time. Make sure that you are aware no matter what you are doing in your day.

C. Post Reminders
1. Create a number of small signs or write on some “Post It” notes. Write the phrase **Blink and Breath NOW!**

2. Place the reminder notes to remind yourself to stop staring and start blinking all throughout the day. Place them at key positions in your world, such as on the computer screen, desk, mirror or dashboard. You might even place one on your watch! The TV is another good place to put a sign reminding you not to stare.

D. Extend Awareness

1. Once you are aware of the stare, try to extend the awareness for more than a few seconds. You are best to choose a short time frame like 30 seconds and remain aware of your blinking and breathing during this time.

2. Make sure you are relaxing, blinking and breathing for the entire time slot. If you are driving, choose a bridge or overpass in the distance and make sure you are fully aware of your blinking until you reach it.

3. Try this first with tasks that do not require much concentration. After you are used to it, try it again with more demanding tasks.

**Changing an automatic habit like staring or holding your breath takes 4 distinct phases...**

1. Become aware that something needs changing
2. Remember to be aware
3. Prolong or extend your attention span for the awareness
4. Maintain the awareness in demanding situations
This section contains no so much lifestyle changes but simple exercises that you should incorporate into your day. They can be done with little or no equipment, and do not require a schedule to complete them in a specific time.

Essentially, you will want to take short breaks from your normal working day to do these tasks. I would suggest doing one task at a time and rotating them to keep them fresh in your mind. If you are working in an office, studying or on computers, take time out at the end of reading a page or website to incorporate these exercises.

I would aim at doing one of these tasks every half an hour or so, just for a minute. This is to be in addition to the break you should be taking each half an hour.

However, you do not need to be overly hard on yourself... just do what you can when you can and relax rather than stress out. If you find yourself becoming unduly stressed, and many of these exercises are trying to combat stress, then the whole thing could be counterproductive!
Background:
Studies suggest that there is something almost magical about the action of sunlight on our eyes. Whether it works or not, allowing our eyes access to true sunlight is an easy thing to do, so “sunning” our eyes is something we should all be doing, weird, radical or not!

Equipment:
If you do not have a lot of sun in your part of the world, the next best light source is a 60-100 watt Daylight Blue Corrected Incandescent globe. But sunlight itself is definitely best!

Method:

1. Face the sun **WITH YOUR EYES CLOSED.** Never look directly at the sun!

2. Turn your head slowly to the right and then the left, noting the feel of the sun on your skin and eyelids. Note the warmth and how this changes as you move your head to different angles of the sun.

3. Absorb the light, and let the light convert into pictures of objects. Imagine you are looking at these objects and that they are far, far away. Imagine you are on the beach on a warm, summer day and let your eyes move slowly behind your eyelids.

4. Do this for around 5 minutes at twice a day.

5. Make sure you are breathing deeply and relaxed. It is important to relax and enjoy this experience.
**Background:**

Most people find that they can see a little bit clearer after a few minutes of palming. It calms the mind, reduces anxiety, relaxes eyestrain and can improve vision. Like “sunning”, palming is designed to reduce the visual stress and tension that the vast majority of myopes face. So even if it seems a little silly, try it and faithfully do it as much as you can!

**Method:**

1. Sit down, lean forward, rest your elbows on a desk and place your palms over your eyes. Do not press on your eyes with the fingers or the heel of your hands, but make sure that the concave part of your palms are placed gently directly over the eyes. Make sure your hands are warm.

2. Imagine your palms can draw the tension out of your eyes.

3. Visualize the various parts of your eyes relaxing, a bit like all your muscles relax when you have a hot bath.

4. Stretch your spine gently as you lean forward and clear your mind, relax your muscles and breathe deeply and regularly. Don’t hold your breath! Make sure you exhale and inhale deeply and equally, and as you do imagine the healthy blood flowing into the structures of the eyes, healing and filling them with health and life.

5. Continue this for at least 2 minutes, concentrating on relaxing and drawing the tension and stress out of your eyes and your head.

6. Do palming often during the day, for a minimum of 2 minutes 2-3 times a day.

7. While palming, can you see colours, and does the colour change as you think about certain things. Does the “inner voice” in your mind interfere with this technique? Can you slow your breathing?

8. When you remove your hands from your face, notice the amount of blur you see? Is it reduced? Notice how bright everything is? Do objects clearer sometimes, and do you have “flashes” of clearer vision?
**Background:**

Stretching the eye muscles can relieve tension and help you to maintain relaxation. They also break the proprioception within the muscles, which are the receptors which tell the muscle where it is in space, thereby “shaking up the whole system” and enabling you to “reprogram” the muscles of your eyes.

**Method:**

1. Seat yourself comfortably in an upright chair with your feet squarely on the floor.

2. Take some deep breaths and relax.

3. On one of the in-breaths, stretch your eyes as far as they can go upwards. This needs to be stretching the muscles without causing strain.

4. Hold your breath. When you are ready to exhale, stretch your eyes downward as hard as they can go without pain as you breathe out.

5. Repeat this exercise 3 times up and down, then stretch the muscles left and right in the same way. Try it also in the up and out/down and in combination, as well as the up and in/down and out sequence. Make sure you stretch hard but without pain, and try to get the breathing right. Make sure you are not staring but blink normally.

6. Now let your eyes move in a circular motion, stretched in every direction and you move your eyes. Your eyes should feel more “alive” after all this stretching.

7. Do this 3-6 times a day. You can do it as you exercise, cook, watch TV, read, use your computer, walk, etc.
Background:

It has long been noticed that, as children become more short sighted, they frequently undergo postural changes. Do the posture changes make children go more short sighted, or does going short sighted make the posture change? No one really knows, and frankly, I don’t care! I just know that we get better results treating both than we do treating one only.

The typical posture change in a child going short sighted is for the chest to cave in, the shoulders to curl in and the hips to turn up. The classic, “sunken chest” nerdy look! This exercise is an attempt to combat this, and should be done many times throughout the day.

Method:

1. Stand with arms be your side looking straight ahead. Make sure the arms and shoulders are help loosely, not rigidly.

2. Rotate the shoulders high and back for a full rotation, pulling your chest out as you rotate your shoulders. The movement should be full and at a constant but slow speed.

3. Repeat this 5 times, then when you stop relax and let your shoulders fall where they naturally fall. Can you notice your shoulders are further back than when you started? Is your chest less sunken than when you started?
Massaging the eyeball helps to relax eye and mental strain in myopia. It can normalize physiological function, forcing toxins from the tissue and strengthening tissue structure by breaking down epithelial masses. It can increase and decrease blood and lymph flow and encourage the relaxation of the nerve pathways.

Caution must be used in applying this technique to patients suffering from glaucoma or older patients with cataracts. Never massage acutely inflamed eyes. Never hold strong pressure on your eyeball for more than 10 seconds without releasing it for a moment, because this can cause increases in intraocular pressure and it is not good for the eye.

Method:

1. Sit at a table with a pillow or mouse pad to cushion the elbows, all lie on your back. Relax as much as possible and breathe slowly and deeply.

2. As you massage your eyes you will see light or dark spots in the opposite field of vision from where you are touching. This is normal and not dangerous if you keep moving and vary the pressure. If your visual clarity is temporarily reduced after the massage, lighten the pressure you put on your eyeball.

3. To relieve eyestrain, tension and fatigue straight but gentle pressure on your eyeballs with the heel of the hand can be helpful. With gentle pressure give the hand a slow, twisting movement while gently contracting and relaxing the eyelid muscles. Then Palm and relax.

4. **Apply pressure at the outside corner of the eyes:** Using your forefinger, put gentle but firm pressure at the outside corner of your right eye, turning your eye to the right while gently resisting the movement with your finger for 5 seconds. Repeat the process five times. Next, do the same while looking up, while looking down, and while looking in towards your nose. Repeat for the left eye. Palm and relax. This rocking of the eyeball gives deep orbital drainage for fluid and toxins.

5. **Apply Pressure on the eyelid:** Place your right forefinger on your closed eyelid above your right cornea. Slide your finger along the eyelid with sustained pressure towards the outer corner of the eye, then do the same again towards the inner corner of the
eye. If you discover any areas of pain, make gentle circles around the pain areas. Repeat 10 or more times, pointing your eye to different positions so as to expose more of the eye to the massage. Do the same for your lower lid. Palm and relax.

6. **Q-tip Massage:** If the pain is further back in the eye, you can use a Q-tip to massage areas your fingers cannot reach. However, you need to be very cautious when using this method and always be extremely gentle. Use the Q-tip on the eyelid and apply sustained but gentle pressure on the affected areas.
Background:

We can resolve details and objects by using the background and our peripheral vision. This procedure enhances our ability to do this.

Method:

1. Place the letter chart on the wall, and sit comfortably as far as you can from the chart while still being able to see the letters (with no glasses on).

2. Close your eyes and hands tightly. Now open your eyes and hands widely and inhale deeply through your nose, avoiding the intense desire to wink. Hold your eyes, lids and hands tense in an alert position and exhale through your mouth. Continue to hold your eyes wide open and the lids alert, but relax your hands and arms and breathe normally.

3. While avoiding winking, call off the smallest letters your eyes can see on the chart. Do not look hard at the letters, but imagine that the white background lies some distance behind the letters.

4. Start at the top of the chart, reading each letter aloud with a definite tempo. If you cannot see a letter, substitute the word “blank”. Continue this further down the chart until you reach a point where the entire line consists of “blanks”.

5. Over several weeks you should find that you can begin to see further down the chart.
**Background:**

Once again, this procedure helps us to resolve detail using background and peripheral vision.

**Method:**

1. Look towards the letters on the chart. Avoid looking at the letters on the chart, but rather be aware that the background floats behind them.

2. Inhale quickly, blocking the intake and blinking the eyes without taking your eyes from the target.

3. Now you must totally relax.

4. Breathe normally and call out the smallest letters you are able to see, one at a time, inserting the word “blank” for any letter you cannot see.
PERIPHERAL HAND AWARENESS

**Background:**

Stimulating peripheral awareness is the key element in reducing stress on the visual system, and opening out our perception of space.

**Method:**

1. Sit comfortably in a chair looking straight ahead at a distant object, for example out of window or at a television.

2. With your arms extended, hold your hands out to the side outside of your peripheral vision and start wiggling your fingers.

3. Bring your wiggling fingers slowly forward until you can detect them, while maintaining awareness on the main target.

4. Do this with your own hands, then ask someone else to help you by repeating the procedure with their hands. Is it harder to do this when someone else is moving their wiggling fingers rather than you?
**Background:**

Swinging is an old technique originally promoted by Dr. Bates in his “Better Eyesight without Glasses” system. It not only helps to relieve tension but also promotes relaxation of the visual system.

**Method:**

1. While not wearing your distance glasses, rotate your body from left to right and back.

2. Eyes, torso and head need to move together, so that you are swinging mostly around your waist.

3. Don't look at anything specific as you swing, but rather be aware of the movement before your eyes. Let your eyes go, let your consciousness day out in front of you while you turn. Make sure you are breathing and blinking correctly.
**ACUPRESSURE POINTS**

**Background:**

In the human body there seem to be specific points where tension is concentrated, and they are not always where you think they might be! Most of us recognize that we get a tense neck and back when you are stressed out, even if we have been lying down for hours! There are places in our bodies where tension seems to congregate, and this procedure is designed to massage those areas, where ever they may be.

**Method:**

1. We will use a small, hard ball such as a super ball (or even a golf ball) to reduce muscle tension and chronic pain by stimulating pain points. Usually we try and avoid pain, but sometimes pain is good and as long as you are reasonable, this pain will make you feel great (a bit like scratching an itch).

2. Here are some pressure points you can concentrate on, around your entire body and on the back of your head. Move the ball to these areas and massage until you identify the exact place which causes the most pain. Then concentrate on massaging that area with as much pain as you can stand (without causing a headache or muscle ache). When you stop, you should feel some relief of the discomfort in that area, then you can move on to the next area.
Background:

Massaging the facial and head muscles can be a very relaxing procedure and has been used for many years in Chinese medicine. Make sure that you are massaging the correct points with slow and gentle movements, increasing the pressure until you feel the beginnings of discomfort. These techniques are particularly useful after reading or writing. Doing them regularly before your eyes fatigue brings good results.

Method:

1. Place thumb and first fingers on the bridge of the nose and squeeze. Hold for 6 seconds then relax, and repeat this 4 times.

2. Massage along the bones that form the eye socket by pressing hard at a point for 4 seconds, relaxing for a second then moving along the bone 5 mm and repeating the process.

3. Continue this process by pressing hard along the cheekbones directly below the eye socket, moving 5 mm each time across the bones. If you identify a particularly painful spot, spend a bit longer massaging this with firm pressure, holding for a maximum of 4 seconds then releasing.

4. Place both thumbs on the bones above the eyes just in from the bridge of the nose, and spread your fingers out across your forehead. Hold pressure for 8 seconds then release, repeating the process at least four times.

5. Massage the temples, the top of the head and the base of the skull near the neck. Are any areas particularly painful? If so, concentrate on these areas with firm pressure and a gentle circular motion.

6. Using a small, hard ball like a super ball, golf ball or even a cold squash ball can help as you massage the bones around the eyes. You can roll the balls across the bones, concentrating on areas that are more painful, and maintaining as much pressure as is required to work the painful area.

7. The aim of these exercises is to induce some degree of pain, which will reduce the overall level of tension and discomfort once the exercise is completed. You
can use the same hard balls to roll across other areas where muscles are chronically tense, such as the back of the head near the neck, the neck itself and even your shoulders.

8. Remember, as you roll the ball across an affected area, look for specific points of pain or discomfort and then take the time to work on those areas, back and forth. This will hurt while you do it, but can give great relief afterwards.

9. Repeat this massaging as often as you can during the day, especially if you are doing a lot of close work or under a lot of stress and tension.
TYPE 3: SPECIFIC EXERCISES THAT YOU NEED TO SET TIME ASIDE TO DO

These exercises are the ones that you have to set specific times aside to do. They may take a little preparation, and you will have to revisit them from time to time once they are completed to achieve a result.

The exercises are colour coded into groups, and you need to do all of the exercises in a coloured group daily for 2 weeks.

The best way to approach these types of exercises is to try and do them every day, usually at the same time. You may find that doing them week days and skipping weekends works for you. All that matters is that you start doing these exercises and become consistent at them. Again, each one should be done daily for 2 weeks, but be sure to come back in future weeks and revisit each one, making note of any improvement in your abilities to do them.

So let me summarize...

1. Do all the exercises from a colour every day, perhaps only during the week (my weekends are packed out too!), and make sure you spend at least 5 and at most 10 minutes on each one. I recommend doing them at the same time each day, because consistency and routine are your friend and not your enemy when doing therapy.

2. Do all the exercises of a given colour for 2 weeks, then move on to the next colour.

3. Make sure that, as you approach the finish of the exercises, you go back and revisit ones that you have done previously. Doing them for 2 weeks only is not ideal, so you will need to revisit them a couple of times.

So, here are the exercises so go to it, have fun and don’t get too stressed about them!
NEAR FAR BOOK ROCK

Background:

This exercise is to develop flexibility in the change of focus when looking near to looking far.

Equipment:

One large Letter Chart, one small Letter Chart, eye patch.

Method:

1. Tape the large chart to a wall. Be sure that there is good lighting on the chart and that you have a clear path to move backward (ideally, a 5 m space).

2. Along the baseboard, measure 1 foot intervals and place pieces of masking tape so that you can see them as you step backwards.

3. Place a patch over your left eye. Walk away from the large chart until the letters just start to blur, then take one small step closer to the chart.

4. Hold the small letter chart (if you can print it on plastic it is even more effective than the small chart printed on paper) as close as you can before it blurs.

5. Read the first 2 letters on the small chart, then look up and read the first 2 letters on the large chart. Then read the next 2 on the small chart, followed by the next 2 letters on the far chart, and so on.

6. When you get to the bottom of the chart, take one step back and see if you can still see the wall chart clearly. If so, repeat step 5. If not, record how far you are from the distance chart.

7. Switch the patch to the right eye and repeat steps 4 through 6.

Aspects to Emphasize:

1. If you cannot get as far from the wall chart with one eye as the other eye or if it takes more time to clear either chart with one eye compared with the other, spend more time...
with the eye that is sluggish.

2. If you do not have trouble keeping your place, try switching from near to far and back again once every three letters until you get to the end of each line.

3. For variety, try reading the chart in different directions. Instead of going from left to right, go from right to left, then try top to bottom and bottom to top. The most difficult is to read the chart on a diagonal.
Near Charts

Cut these charts out and use them for the near charts in this therapy. Start with the larger print one, then progress to the smaller print chart.
Background:

Relaxing your eyes while you are looking for details is often a difficult procedure for a myope. It helps if you are already good at palming, sunning, blinking and breathing, and if you know the feeling of being visually relaxed.

Method:

1. Use the ABC visual acuity chart under a bright light. Tack the chart on the wall, and place your chair at a distance where you can see the larger letters easily but the smaller ones are blurred and difficult to see.

2. Remember to relax your mind, relax your vision and don't stare at the objects in an effort to try and make them clear.

3. Close your eyes and then quickly glance for a split second at the chart, closing your eyes again afterwards. Can you remember the image as if you've taken a photograph of it?

4. Now try rapid blinking and see if you can make some of the lower letters is clear. This helps to break up the stare.

5. Next try slow blinking. Close your eyes, wait for them to relax, initially squeezing them tighter than gradually relaxing the squeeze. Gently open your eyes and feel any tension changes. Let your senses learn to wait for the letters to become clear by themselves rather than straining to get them clear.

6. You can also try this with the “Quick Blink Method”. In this you make a rapid strong squeeze and then snap your eyes open. Do several quick blinks and see if the letters become clearer lower down the chart. Remember to blink and breathe after each deep blink.

7. These simple techniques can trick myopic eyes into doing what normal eyes do unconsciously, so if you can get more of the lower letters clear this is a very good sign for the future.

8. Do eye stretches and rotations, then blink and land on a letter. Try to do the same again and land on the lowest letter you can. Make sure you breathe and blink as you do this.
9. Print several charts and place them around the room at different places and different distances. Try finding one letter on a given line on the first chart, then find the same letter on the same line on all the other charts. Try doing this in time with a beat. Can you start to see the more distant charts clearly after a while?
Background:

Probing the boundary of where clear vision and blurred vision start can help us to push clear vision beyond the level where it has stopped in the past. This technique is designed to explore the boundary between clear and blurred vision, and attempt to increase the amount of clarity that we see.

Method:

1. Place the letter chart on a wall and stand as far away from it as you can while just barely being able to make out some of the letters (not wearing your distance glasses). Cover the left eye.

2. With your body facing towards the left side, spread your feet apart and turn your head to the left, towards the target. Lean forward with the weight on the front foot and the chart should be clear. Rock back onto the right foot until the target blurs. Now rock forwards again, then back again.

3. Keep both feet on the floor throughout, and keep repeating the procedure until the target is clearer at the end of a rock backwards.

4. Next, repeat the procedure after stepping back further from the chart so that it is barely readable on the front foot, and unreadable on the back foot.

5. Repeat the procedure with the other eye while facing the other direction. Make sure you spend equal time doing this procedure with both eyes.

6. Finally, face the calendar directly with one foot forward and one back and repeat the procedure with both eyes open.
Convergence Exercises

Background:

The purpose of this exercise is to learn to converge (cross) and diverge (un-cross) the eyes quickly and easily and to shift the fixation from one target to the other. This increases the flexibility of the accommodation/convergence relationship, and helps the visual system to be more flexible when faced with stress, thereby reacting less when undergoing stressful visual exercises.

Equipment:

2 pencils, or paddle-pop stick targets, different colours

Method:

1. Slowly move ONE pencil toward and away from your nose. You need to keep the target SINGLE AND CLEAR. Move it in until it goes blurry, then move it away until you can get it clear again. The goal is to keep it single and clear to a point approximately 5 centimeters (2 inches) from the nose. (The clarity depends on your age if you are over 40)

2. Using TWO pencils, hold one pencil closer to your nose and the other about 30 centimeters (12 inches) behind the first. Look at the closer pencil so that it becomes single and clear and be aware of the second pencil. While you are looking at the first pencil, how many of the other pencil do you see? If both eyes are working correctly together, you will see two.

3. Then look at the further pencil and be aware of the closer one. Again try to see two of the closer pencil while looking at the further one. The goal of this exercise is to make the jumps between the two targets accurately and smoothly with no other fixations in between. You may use the Rhythm Tape and try to jump from one pencil to the other in time with the beat.

4. Hold the two pencils as before with one closer than the other. Move the closer pencil slowly toward the further pencil. Keep your eyes on the moving pencil at all times, but be aware of the other pencil also. After moving the pencil back and forth, what is happening to the stationary pencil while their eyes are looking at the moving pencil. If both eyes are 'on', the stationary pencil will appear double. The closer the moving pencil comes to the stationary pencil, the closer together the doubled pencil moves. It appears as one pencil when the moving pencil reaches it. The opposite occurs when the moving pencil goes away from the stationary pencil. The goal is to move the eyes in and out smoothly and easily.
Background:
This simple and effective procedure will enable you improve the speed, accuracy and ease of eye movements in a relaxed way.

Method:

1. You will need a metronome or music with a solid beat, and the 16 pointed star chart supplied.

2. Begin by looking at number 1. The aim is to move your eyes to number 2 along the appropriate line, then number 3, then number 4, and so on. Try to do this exactly on the beat.

3. The goal is to move your eyes to each number in a relaxed fashion. Do you find that this exercise makes you so anxious that you hold your breath or stare as you move your eyes?

4. Practice relaxing as you breathe and blink and move your eyes on an easy tempo at first. Once you have mastered this, you can move on to a more demanding tempo. This may take weeks, but over time you will learn to move your eyes in a relaxed way, which will in turn help to decrease the pressure and tension of live movements when you are reading.
Star Chart
Background:

The easing of muscle tension is a key part in the control of myopia, because myopia is tied to visual and general stress. This procedure is trying to reduce stress on the visual system.

Method:

1. Place the letter chart on the wall and with one eye covered, back away from the chart until the letters can no longer be identified. Now take another step further away, trying to remain as relaxed as possible.

2. Now clench both hands as hard as you can, lean forward slightly at the waist and hold yourself rigid and tense while blinking rapidly. Move forward slowly until you can barely identify the letters in the top row, even if they are very blurred.

3. Now relax, take several deep breaths and try to get the target clear again. Move closer to the chart if you need to.

4. Repeat the procedure, attempting to increase the distance you can stand from the target whilst getting the letters clear.

5. Repeat the procedure for the other eye and for both eyes together.

Aspects to Emphasize:

Maintain a relaxed posture as you initially back away from the target

Only clench and tense when you are trying to see the letters emerge from the blur

Make sure you measure and record the maximum distance you can get from the chart, and use smaller letters if you cannot get back further from the chart.
**Background:**

To learn and improve the accuracy of how and where your two eyes are aiming together as a team.

**Equipment:**

Four foot string with three coloured beads (and red/green glasses, if necessary)

**Method:**

1. Tie one end of the string to a doorknob. Place the green bead at the end of the string near the knob, the yellow bead 12 inches from the other end, which is closest to you, and the red bead halfway in between.

2. Loop the close end of the string around your index finger and hold the string between your eyes, midway down your nose. Walk backward from the door until there is no slack in the string.

3. You should see two strings that appear to be coming out from opposite sides of your head. Look down the string at the green bead. The two strings should come together at the green bead, like a V, with two red and two yellow beads along the way. Which beads are closer to each other, the two red or the two yellow?

4. Look at the red bead, and the strings should come together and cross at the red bead like an X. How many yellow beads do you see in front of the red bead? How many green beads do you see behind the red bead?

5. Look at the yellow bead, and the strings should come together and cross at the yellow bead. You should be aware of two red beads and two green beads behind the one yellow bead. Which beads are closer to each other, the two red or the two green?

6. There are two basic ways to change where your eyes are aiming. One is to follow an imaginary "bug on a string" that is slowly crawling from one bead to the next. The other way is to jump" from one bead to the next. Make sure you see what happens both ways.
Aspects to Emphasize:

1. If one of the strings or beads is missing, you are not using both eyes together at that point. Blinking your eyes, flicking the string, or putting on red/green glasses may be helpful in keeping everything visible.

2. If the strings cross closer to the point where you aim your eyes, take a deep breath, relax, and imagine that you are looking at a point very far away. If the strings cross farther than the bead you are looking at, you are "phasing through." Touch the bead with your finger or use a pointer or stick to touch it, so you can confirm its physical location.

3. If you have more difficulty with the far bead, move the bead a little closer to you. If you have more difficulty with the near bead, move it a little further from you. Then try to move it back to its original position. Your goal is to bring the near bead to a distance of 4 inches from your nose, with the far bead at the doorknob, and the middle bead halfway in between.

4. There is a trick to which eye sees which bead. Let’s say the yellow bead is closest to you, the red bead is in the middle, and the green bead is at the doorknob. When you look at the red bead you will see two yellow beads. Close your right eye. Which yellow bead disappeared, the one on the left or the one on the right? Now, look at the red bead and be aware of the two green beads behind it. Close your right eye. Which green bead disappeared, the one on the left or the one on the right? (Answer: in front of the point where you are looking, the left eye sees what is on the right side; beyond the point where you are looking, it crosses over, and the left eye sees what is on the left side).
Nose Painting with Mr Squiggle

Background:

Mr Squiggle was a children’s character as I was growing up. He had a pencil for his nose and use to draw incredible pictures (usually upside down) using his nose. In this exercise we are going to use a similar principle to loosen the muscles in our shoulders, neck, head and eyes.

Method:

1. Close your eyes and slowly rotate your head left, then right, then up, then down. Move your head forwards and backwards in a circular motion, and keep your neck extended and your shoulders relaxed while you do this. Be aware of the world around you, and imagine your eyes are floating as you move your head. Can you feel your head and neck moving?

2. Now open your eyes and imagine you have a pencil extending from your nose directly in front of you towards a wall.

3. Draw a figure 8 on the wall in front of you using the pencil attached to your nose. Keep blinking and breathing well and try to draw other objects on the wall. Make sure the objects are big and cover the full range of your head movements.

4. Now draw the objects, but imagining that the pencil extends through the wall about 2 metres beyond it. Repeat imagining the pencil is 20 metres beyond the wall. Repeat again imagining it is 20 km beyond the wall. Does it feel different each time?

5. Do this a number of times during the day, making sure that you relax, blink and breathe properly as you do it.
WHITEBOARD ACTIVITIES

Background:

Whiteboard activities can be a great way to enhance peripheral vision and overall coordination. These days whiteboards are quite inexpensive, and if you have a whiteboard you will need to felt pens, preferably of different colours. Alternatively, you can use a double sliding glass door and draw on it with soap.

Method:

1. Face the whiteboard and mark a fixation point (an X is fine) at eye level, around 30 cm from your nose. Make 2 vertical lines about 20 cm in length, and around 15 cm apart. Do this 30 cm to the right of the fixation point, and do the same 30 cm to the left of the fixation point.

2. The patient is to fixate on the central point and, without looking directly at the vertical lines, connect them with short horizontal lines (making the rungs of a ladder). Repeat on the other side of the fixation point using the other eye and hand.

3. Once this task can be done accurately on both sides of the fixation point, move the vertical lines out another 10 cm from the fixation point.

4. You can vary the above by using a series of dots for the patient to connect, or a circular pattern of dots with a central dot, allowing them to draw spokes from the central dot outwards. Again, as they become more proficient at this, move the targets further into the peripheral vision by around 10 cm at a time.

5. Remember, while doing this task the patient must remain fixated on the central target and not glance across at where they are drawing. They must use their peripheral vision to obtain accuracy in the drawing.
Background:

Using spirals has been a popular vision training method for reducing myopia since the 1940s. This fascinating procedure involves watching a rotating spiral, which when you view the world afterwards produces a reversed after-effect, causing an apparent enlargement of whatever was being looked at. The exact mechanism of this phenomenon is unsure, with many feeling that it is more a higher cortical process in the brain rather than an eye or retinal response.

Method:

1. Look at the letter chart in the distance and determine the lowest line that can be read comfortably without any spectacle correction being worn.

2. Now if you are spiral at a distance of 40 to 50 cm. The spiral is rotated so it spins inward towards the centre and the patient is instructed to experience the spiral not only as a spiral but like a time tunnel, going backwards in space. Instruct them to look through the chart rather than at it.

3. **After 60 seconds**, look at the letter chart again and determine the lowest line that can be read now.

4. Using a stationary, non-rotating spiral, repeat the procedure via mentally following the line of the spiral inwards and imagining that it is both rotating and floating in space. With practice you should be able to obtain the same results as the rotating spiral, and you should attempt to maintain these results for as long as possible.

5. Next, sit comfortably with your eyes closed and imagined the spiral rotating in front of you and yourself being drawn into it. Once again look at the chart and determine the smallest letters that can be read. Can you achieve the same results by mentally viewing the spiral instead of physically viewing it?

6. Finally, use the same visualizing procedure and imagine the rotating spiral with your eyes open. Gaze directly at the target and see if you are able to read further down the chart as result of this visualizing and mental exercise. Practice using this open
the eye imagery technique anytime, anywhere and anyplace, and tried to do it several times a day.

7. This technique provides a myopic person with a tool to voluntarily increase distance discrimination ability whenever they require it.

8. Repeat the same techniques with the floating boxes, imagining that you are disappearing into the boxes, and go through the same steps as above.

The following pages offer you a number of spiral charts, but they will not appear to be moving when you first look at them. They only start to move when they are opened in internet explorer, firefox, chrome or another web browser.

So, for most of you, you can click on the image and it will work, if you are connected to the internet. If this fails, what you need to do is

1. **RIGHT CLICK** on the image

2. Choose “Open in” or “Open Target in”, then select a browser. This will open the file in the browser and it should be moving or spiralling at that point.
Large Animated Gifs: Just click to open (you must be on the internet to see this)
Smaller Animated Gifs:
This is a simple spiral without an image behind it:
VISUAL SCANNING

Background:

To enhance your new habit of “relaxed seeing”, peripheral awareness and the ability to take in and process visual information is essential. Scanning is one of the best ways to train the eyes to do this.

Method:

1. Use the chart provided and place them on a wall as far away as you can see them without your glasses on.

2. Cover the left eye. Begin to scan across the chart, from left to right, looking for the letters in order, A, B, C, etc.

3. Next, repeat this with the right eye covered, using only the left eye. Do you find it easier or harder than with the right eye?

4. Repeat again with both eyes open. Is this easier than with each eye separately?

5. Repeat the entire process again, this time looking for numbers in order, 1, 2, 3, etc.
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Background:

Keeping your peripheral vision open, or opening it in the first place, is an important part of reducing stress on your visual system. Short sighted people tend to be very focused and zero in on a target while closing down their periphery, so this exercise is designed to open peripheral vision.

Method:

1. Hold the Peripheral Card at around 40 cm from your nose. Look at the smiley face in the center of the card. You are going to stare at this and not move your eyes around the page, so it may be helpful to have someone watching you to make sure you keep your gaze still.

2. Remember, the goal is to keep your eyes still and not wandering.

3. Start reading the letters out loud using the “corner of your eye”, while you continue to look at the smiley face. Make sure your eyes are still. Read the letters in alphabetical order.

4. Ask yourself: Is this exercise hard or easy? Why? Did you get better as you practiced? Is this helping you to see more at once? Is it helping you to get more information with each look? An you feel your eyes “de-stressing” as your peripheral vision opens?
Peripheral Vision Card
Background:

It is not easy to combat the unconscious tendency to strain our eyes to see, but to reduce myopia we have to do this. This exercise can help you to look at details in a different way. It helps if you can already do palming, sunning, blinking and breathing and it you know how it feels when your vision is relaxed.

Method:

1. Use a brightly lit ABC chart (see later) and sit in a chair facing it, moving your chair to the point where you can see the largest letters on the chart easily, but the smaller ones are blurred. Sunning, palming, blinking and breathing are a good fore runner to this activity.

2. Clear your mind of over-anxiousness to see the lower letters. Close your eyes, then glance quickly at the chart, remembering what you see in this quick glance.

3. Try to visualize the lower letters even if they appear blurred or doubled initially. Don’t strain to get them clear, but relax and “allow” them to come clearer.

4. Try rapid and slow blinking, because these can break up the stare. Do the letters become clearer during rapid blinks? Are they clear when you open your eyes on a slow blink, but then go blurry again? If so, try and relax to sustain the clarity for longer.

5. Try a quick deep blink as well, using a rapid, strong clenching of the eyes shut, followed by snapping them open.

These techniques can actually trick short sighted eyes into do what normal eyes do naturally and unconsciously!
Advanced Techniques:

A. The Big Glance

1. While facing the chart, glance over your left shoulder with eyes open and blinking normally. Try to stretch the muscles as you look to the left.

2. Now slowly sweep your eyes to the chart, and to the Big “A” on it. Close and rest your eyes but continue the movement until you are looking over your right shoulder.

3. Open your eyes, glance over the right shoulder then drift your eyes back to the “B”. Close your eyes, release the tension and breathe. Make sure you slide “under” any other letters on the chart, rather than jumping directly to the “B”.

4. Glance over your left shoulder again and repeat the slow sweep, finishing this time on the letter “C”, then moving on to the right shoulder, repeating again and finishing on the letter ”D”.

5. Repeat this process with the next line down, and then then next. Palm and relax after each line is completed.

B. Eye Drops

1. Close your eyes, breathe and relax. Then open them and look at the large letter “A”.

2. Now gently drop your eyes to the letter “A” below it on the next line. Close your eyes again and relax.

3. Open again and then drop to the “A” on the next line down.

4. Continue this down the chart, even if you can only see fuzz.

5. Repeat for B, C, or even D, E, etc.
C. Find a Letter

1. Close your eyes and face the chart. Think of a letter.

2. Open your eyes and see how quickly you can find the letter on the lowest line that you can distinguish. Then close your eyes.

3. Open your eyes and try and find the letter again on an even smaller line.

When doing all of these exercises, make sure that you rest and relax. Getting stressed about not doing well at the task is counterproductive. Take your time, over weeks, and see if you can gradually, gently improve. Take lots of time between tasks to rest and relax further.
**CHART TO BOOK FIXATION**

**Background:**

The aim of this exercise is to further develop the ability to quickly and efficiently change focus from near to distance and back again. This releases stress on the visual system, further relaxing focus.

**Method:**

1. Place the letter chart used before on the wall far enough across the room so that the letters on it are just readable, preferably without your distance glasses.

2. The book should be propped up on a table at reading level. Choose a book with small print.

3. Cover the left eye with your hand gently and read the first three letters on the top line of the chart with the right eye.

4. Then cover the right eye, uncovering the left and read the first sentence or line of the book with the left eye.

5. Continue repeating steps 4 and 5 until the chart is finished.

6. Repeat using the right eye for distance and the left eye for the near.

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**THUMB BLOCKING**

**Background:**

This procedure can help you develop spatial awareness and can also help in your computing of visual space, size and distances.

**Method:**
1. Lock your fingers together, arms outstretched and with your thumbs straight up in front of your eyes.

2. Select a distant target and move your thumb slowly until the right thumb blocks the target from the view of the right eye and the left thumb blocks the view of the target from the left eye.

3. At this point you should be aware of three thumbs, the real ones on either side, and a combined thumb in the middle.

4. Look through the middle thumb and attempt to see it clearly and in detail while looking across the room. Try to maintain the clarity of all three thumbs, and also maintain awareness of the entire room and the space around them beyond the thumbs.
MYOPIC ASTIGMATISM

Background:

Many people who are short sighted also have astigmatism, which means that the amount of short sight varies across the surface of the eye. The analogy I often use is that of a rugby ball rather than a soccer ball, with a steep and a flat meridian like the rugby ball instead of the same curvature in all directions like the soccer ball.

So the amount of power is as important as the direction of the power, and this is what the following exercise is exploring.

Pre-Method:  (Do this with one eye at a time only and no glasses on)

Determine the axis of your astigmatism in this way...

1. Hold the astigmatism chart at your normal reading distance. If you are more short sighted you will have to hold it closer. Hold it at a distance where one side of the lines is almost about to blur.

2. Rotate the page slowly, noticing the clarity of the lines on either side. When the orientation matches that of your actual astigmatism, one set of lines will appear black and clear while the other appears grey and blurred. If they are identical, make sure your glasses are off and you are only using one eye.

3. Once one side is clear and the other blurry, move the chart closer or further away until the other side of lines is clear and the previously clear side is blurry. Now you have established both the amount and orientation of your astigmatism (astigmatism is always at right angles to the other side). The axis may be straight up and down, or at a diagonal, and it may be different between the two eyes.
Method:

1. Determine the 2 focal points by bringing the chart closer of one side to become clear, then pushing it further away so the other side becomes clear. Note the distance of each side and also the angle of the page. A larger distance between the two indicates a larger amount of astigmatism.

2. Using one eye and no glasses, hold the page at the most distant focal point (where one set of lines is clear and the other is blurred). We are going to be dealing with the BLURRY lines, not the clear ones! Make sure the other side is clear.

3. Starting at the left side of the top most line on the blurry side of the card, slowly move your point of fixation to the other end of the line, moving your whole head rather than just your eye. Blink, breathe and relax, and continuously be aware of your peripheral vision. Try to look “wide” and breathe normally. Imagine a tiny black ant or spider walking along the line with your fixation, and picture the background “slipping” by.

4. Notice that your fixation point is the blackest and clearest part of the blurry side of the page. Concentrate on not concentrating! When you reach the end of the line, move your eyes onto the next line down and retrace your steps in the opposite direction on the new line (ie: from right to left). Continue moving back and forth across the line, and make sure you keep blinking and breathing calmly.

5. If you lose track of a line, sit down, take some time out and relax. Let the image come to you rather than concentrating on it.

6. Do these blurred lines begin to come clearer? As you practice over a few weeks you may find that they spontaneously come clearer, and the distance between the two sides being clear is decreased.

7. Move until the other side is blurred (so this first one is clear) and repeat. Remember, you cannot do all of this in one session, so take your time and slowly work your way through the tasks.
Conclusion:

There is a lot of information in this book, none of which can harm your eyes and most of which can help control short sightedness. It is one thing to read, it is another to do all of the exercises and techniques described here. It is still another to go back and redo them frequently, as the need arises.

However, by doing all the techniques listed in this book, and by coordinating with your vision care provider, especially using the right type of lenses or contact lenses, you have an excellent opportunity to limit and maybe even reverse the effects of short sightedness.

And these techniques work as a preventative for short sightedness, so why not use them with your children or others **BEFORE they go short sighted** rather than waiting for them to go short sighted, then trying to haul them out again? Prevention is definitely better than cure, but it is harder to be motivated to do it, so be vigilant and work hard to stop those you love experiencing the frustrations of going myopic.

If you need any help, please remember that I am a real Optometrist, so if you email me I am sure to reply as I have opportunity.

Until then, work hard and be prepared to change your lifestyle, because together we can work against and overcome the myopia which is sweeping our nations!

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