Myopia

Myopia, or nearsightedness, is a condition in which the clarity of objects becomes obscured with increased distance. The objects become blurred due to one of two reasons: a long eyeball (Figure 1) or a highly curved cornea (figure 2); both cause the object to focus a distance in front of the retina, making the objects look unclear.

Myopia is most commonly corrected with glasses and contact lenses, yet refractive surgeries are becoming increasingly more popular for their ability to permanently eliminate or reduce their nearsightedness. The two laser procedures are PRK, in which the laser flattens the highly curvy cornea, and LASIK, in which the laser removes some corneal tissue. Lastly, there is a nonsurgical procedure called orthokeratology, where you wear special contacts overnight to reshape your cornea.

Apart from the difficulty in seeing far objects, myopic patients could experience eyestrain, headaches, and fatigue while driving or participating in sports.

One can inherit myopia from their parents, or they can develop nearsightedness from excessive visual stress. The most common ways in which people stress their eyes are from reading, being in front of monitors such as TVs or computers, and by performing work that requires exceptionally close visual work.

If you are unsure whether you are myopic, your optometrist can diagnose whether you are nearsighted, as well as determine the power of the lenses that would correct your vision. If you are myopic, your sphere on your prescription will be negative (-), with the numbers representing the degree of your nearsightedness (ex: -0.50 less nearsighted than -4.0).

Although myopia most often does not pose a threat to the health of the eye, there are rare cases in which the myopia may progressively get worse, leading to blindness. This rare condition called degenerative myopia increases the risk of retinal detachment, cataracts, as well as other degenerative changes in the back of the eye. A treatment for degenerative myopia is photodynamic therapy, a laser procedure.

Resources:
http://www.allaboutvision.com/conditions/myopia.htm
http://www.aoa.org/myopia.xml
coe.berkeley.edu (figure 1)
www.health2know.com (figure 2)