

## Quick guide to understanding eye test results

Ever wondered what all those numbers actually mean when you have your eyes tested? We've put together a short guide to understanding the numbers on your glasses prescription.

Learn more about what's involved in an eye test at <http://www.theeyepractice.com.au/eye-test/>

### What does your glasses prescription mean?

In simple, concise terms, your spectacle prescription is a measure of how short-sighted or long-sighted you are in each eye, as well as how much astigmatism you have. The unit of measurement is called the dioptre (D).

### How can you tell if you're short- or long-sighted?

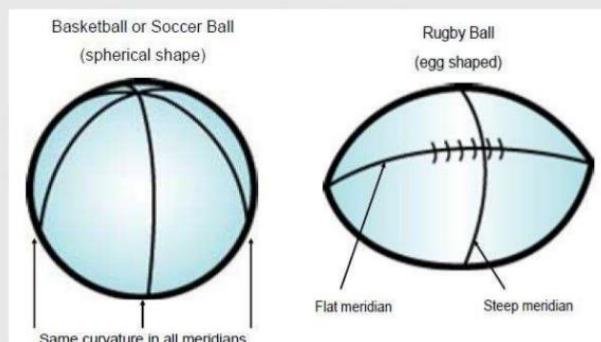
The cornea, or front surface of your eye, is a clear dome that focusses light entering your eye onto your retina. The curvature of your cornea determines whether you are short- or long-sighted. A cornea that is more curved than normal is myopic (the medical word for short-sighted). A flatter than average cornea is long-sighted. Short-sighted folks can usually see well up close, but distance is blurred. If you're long-sighted, close work is more blurred, although distance is often (but not always) in focus.

A plus (+) in front of the number means you are long-sighted. Your lenses will be thicker in the centre and thinner at the edges and make things look bigger (including your eyes). A minus (-) means you are myopic (short-sighted). Your glasses lenses will be thicker at the edges and thinner in the centre and will make things look smaller.

### What does astigmatism mean?

Astigmatism is simply the difference in curvature between the steepest and flattest curves of your cornea. Think of the front of your eye as a bit like an egg or rugby ball; one contour is more steeply curved than the other. Even a small difference in curvature means you have this condition. It is perfectly normal to have a small amount in each eye. In fact, it is much rarer to have perfectly spherical eyes, with no astigmatism whatsoever.

The difference in curvature often happens naturally, due to the flexible eye's position in its socket between your rigid brow bone and cheek bone as well as pressure from the eyelids. It gets ever so slightly compressed, so it is often a little curvier vertically compared to horizontally.



## What do the letters mean?

The numbers on your spectacle prescription are shown for right eye, indicated as RE (or, occasionally, OD – the Latin for oculus dexter, meaning right eye) and left eye (LE or OS – oculus sinister). If there is only one number, this means the eye is spherical and has no astigmatism correction: e.g. RE: **+4.74DS**

## What do the other numbers mean?

Most eyes are not spherical, so the numbers need to be able to show how much more curvature is in one meridian (or contour) and where that is. e.g. RE: -3.00 DS / -1.00 DC x 90

In the example above we can tell that one curve of the cornea is 3 dioptres short-sighted. BUT, the other curve of the eye is an extra 1 dioptre (DC) short-sighted on top of that 3. This means the opposite contour is 4 dioptres short-sighted (the original -3 and the extra -1). The last number (90) is where the extra power is required (at 90 degrees) in order to correct the eye fully.

## What about reading vision?

If you're over 45 years of age, your reading prescription will be different to your distance prescription. This is shown as a single number (called a 'reading add' or 'near add') beneath the other information and is always a plus (+) number: e.g. Reading Add: **+2.00 DS**. The reading add is determined by the distance you read at, so you may have a different prescription for computer work.

## What about prism glasses?

If the two eyes are not working properly together and causing double vision, the lens can be slightly wedge-shaped to redirect the light and line the two images back up so you can see clearly in stereo (without double vision). This wedge-shape is called a prism. Prism is measured in prism dioptres (denoted as the Greek letter delta - a little triangle). Prism glasses have another set of numbers on the prescription showing how much prism and whether it is needed to align the vision vertically - base up (BU) or down (BD) or horizontally (base in / out): e.g. RE: +1.75 DS **1.0 Δ** BU; LE: +1.75 DS **1.0 Δ** BD

## What's 20/20 vision?

The eye test chart is positioned 6 meters (20 feet) from your eyes during an eye examination (often using a mirror positioned 3 meters away). This is the first '20'. The letters on the chart are graded according to what the healthy human eye can see. If you can read the smallest letters that the human eye can read at that distance, you have 20/20 vision (or 6/6 vision in Australia, as 20 feet is about 6 meters).

If you have 20/40 (or 6/12) vision, that means you can read at 20 feet what a normal eye can read at 40 feet. Most healthy, normal eyes have 20/20 vision with their glasses. If you have a lazy eye or an eye disease, you may not have 20/20, even with glasses.