How to fit your participant with MR safe eyeglasses

Before the scan: ask if they need to wear glasses to see. If yes, ask if they have contact lenses they can wear that day, just for the scan.

If not, ask them to bring along any eyeglasses prescription information they have, and their glasses. If they don't have the prescription, you can estimate their prescription based on their glasses.

There is one set of MR safe eyeglasses in each control room.

The set includes lenses, MR-safe plastic frames, an eye chart, and a polishing cloth.

Prescriptions for nearsighted people will have a negative value, and farsighted people will have a positive value. Severely farsighted people will need lenses with a larger value (more correction) than mildly farsighted people. Your participant may need 2 different strength lenses in the left and right sides of their glasses.

If they did not bring their prescription you can narrow down the options with 2 questions:

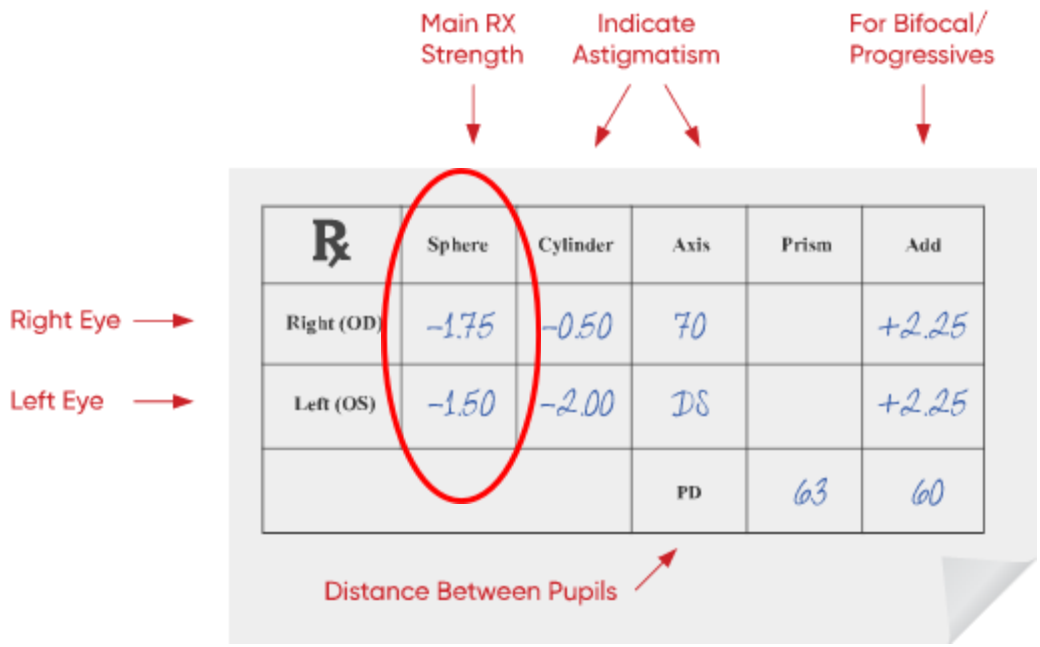
1) **Are you nearsighted or farsighted?**

This answer will eliminate half of the lenses in the box.

2) **Is your glasses prescription strong or do you just need a little correction?**

This will either eliminate the stronger lenses (thick lenses, closer to the hinge on the case) or the weaker lenses (thin lenses, closer to the case's handle and latches.)

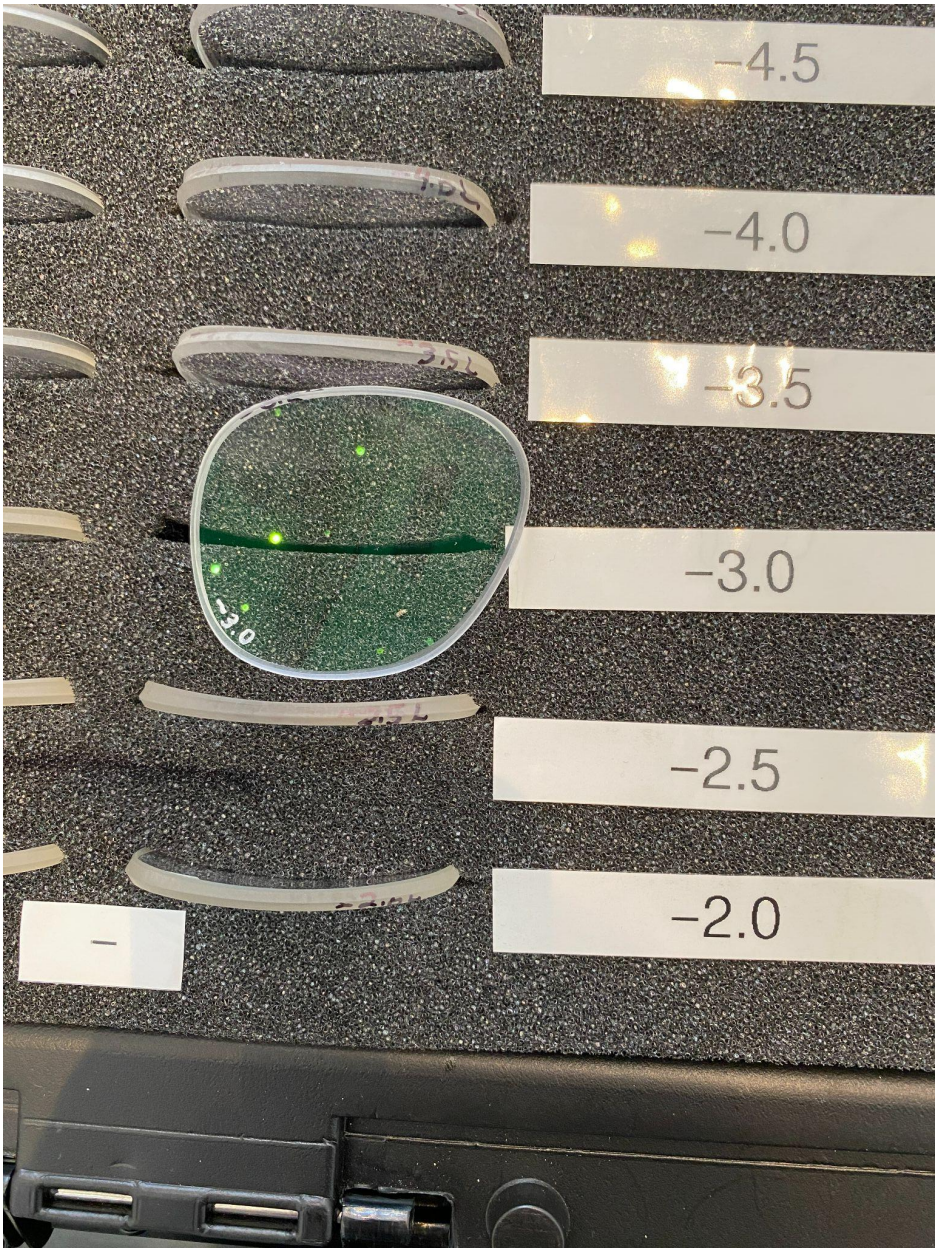
If they brought their prescription information, you can use that to select the best lenses for them. Use the "sphere" values. The values "cylinder", "axis" "prism", and "add" are irrelevant for our purposes; unfortunately we can't correct for astigmatism or presbyopia.



Finding the best lenses will involve a bit of trial and error. We don't have as great a variety of lenses as an optometrist, so just get as close as possible. In the example prescription, you see the right eye's "sphere" value is -1.75 but we only have lenses for -1.5 and -2.0. In that case, try both and see which is manageable for the duration of the scan.

The lenses fit in either the left or right space in the eyeglasses frame. You can tell by its shape; the rounded "point" on one side goes towards the bridge of the frame.

Each lens is engraved with a negative or positive sign, and its strength. Each lens is stored in a labeled slot in the case. You can use the eye chart, 6ft away, to test and see if their MR-safe glasses correct their vision like their own eyeglasses do.



Please be sure to replace the lenses in the correct slot when the scan is over.