

Pupillary distance

Pupillary distance (PD) is the measurement from the centre of one of your pupils to the centre of the other. It is one of the measurements needed to make sure that your glasses fit you properly and that you can see clearly and comfortably through them.

Is measuring PD part of my eye examination?

Your eye examination will determine the prescription you need to see clearly and comfortably but will not include the measurements needed to make sure your glasses fit correctly. This is because there are several measurements that are needed, of which your PD is just one. Most of these measurements will depend on the frame you choose, and so cannot be taken until you have chosen your new glasses. The cost of taking these measurements is included in the cost of the glasses.



What other measurements are needed for my new glasses?

Your optometrist or dispensing optician will take the following measurements to make sure that your new glasses fit properly, are comfortable and you can see clearly through them:

- The frame width. This is needed to make sure the frame is suitable for your head and your prescription.
- The bridge width. This is needed to make sure that the frame fits you well across your nose.
- The back vertex distance (BVD), which is the distance from the back of the lens in your glasses to your eye. This is needed if your prescription is relatively strong. It will be written on your prescription, and the optometrist or dispensing optician will measure it with you wearing the frame you choose for your glasses. If the BVD for your new glasses is different to the BVD that is written on your prescription, the dispensing optician will adjust your prescription so that you can see clearly.
- The height of your pupils in relation to the top or bottom of the frame you have chosen. This is needed if you have a relatively strong prescription, or if you choose to have aspheric lenses. Aspheric lenses are where the prescription varies from the centre of the lens to the outside of it to make the lens thinner and lighter. The height of your pupils in relation to the frame is also important if you decide to have varifocals (also called progressive addition lenses, or PALs) or bifocals, to make sure that the lenses sit in the correct position on your face.
- The length of the sides of the frame to make sure they are right for you.
- The angle of tilt of the frame to make sure the frame tilts forward on your face by the correct amount.

Do I have to pay to have my PD measured?

Measuring your PD is a private professional service and your optometrist or dispensing optician may charge for this. However, as you will need to have other measurements taken to make sure that your new glasses fit you properly, and that you can see clearly out of the lenses, it is better to get these done all at once by the person who supplies your glasses. These measurements will be included in the price you pay for your glasses.

Will wearing glasses with the wrong PD do me any harm?

Although looking through the wrong part of the lenses will not do you any harm, you may notice distortion or blurring of your vision or get headaches or eye strain. It is particularly important that you are looking through the correct part of the lenses if you have a strong prescription or if you wear varifocals .

Will my PD change?

Once you have finished growing, your PD is unlikely to change. However, because your eyes converge (look more towards your nose) when you look at something close up, for example when reading, your PD for reading glasses will be less than your PD for distance glasses.

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