

Bifocal Contact Lenses ... How do they work?

Joseph Raczek, O.D.

All soft bifocal contact lenses work on a “simultaneous vision” principle. This means the optics for both distance and near vision are in front of the pupil at the same time. The patient must “pay attention” to the image at whichever distance is desired, in order for the lenses to work. An similar auditory concept is to be listening to two different musical instruments at the same time. You can hear both but you can train your ear to pay attention to only one of the instruments. However, if you just wanted to hear one of the instruments, it'd be easier if only one was playing.

Success rates for bifocal contacts will depend on your motivation and the specific visual task you are doing. Many people will find bifocal contacts satisfactory for most visual tasks, but less than satisfactory for a few specific tasks. Finally, different types of bifocal contacts usually have to be tried in order to achieve the highest success rate and the best vision.

Types of bifocal contacts:

1. **Center Distance**: alternating rings of distance and near optics.
2. **Center Distance**: gradual (and concentric) transition to near power as you move towards the periphery of the lens.
3. **Center near** : gradual (and concentric) transition to the distance power as you move towards the periphery of the lens.
4. A combination of #2 and #3, The dominant eye biased towards distance and the non dominant eye biased toward the near.

Two additional options are:

1. Two distance lenses with **reading glasses** used for near.
2. **Monovision**. Fit the dominant eye for distance and the non dominant eye for near.

Additionally there are two types of hard gas permeable lenses:

1. **Center distance**. Transition to near as you move towards the edge of the lens.
2. **Segmented**. A “line” bifocal with two distinct zones, one for distance and one for near.

To properly be fit with and to evaluate the performance of bifocal contact lenses you should plan on at least three office visits and commit to making a real effort to try at least 2 types of lenses.