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Visual field

The visual field refers to the total area in which objects can be seen in the side (peripheral) vision while you focus your eyes on a central point.

How the Test is Performed

Confrontation visual field exam: This is a quick and basic check of the visual field. The health care provider sits directly in front of you. You will cover one eye, and stare straight ahead with the other. You will be asked to tell when you can see the examiner's hand.

Tangent screen or Goldmann field exam: You will sit about 3 feet from a screen with a target in the center. You will be asked to stare at the center object and let the examiner know when you can see an object that moves into your side vision. This exam creates a map of your entire peripheral vision.

Automated perimetry: You sit in front of a concave dome and stare at an object in the middle. You press a button when you see small flashes of light in your peripheral vision. Your responses help determine if you have a defect in your visual field.

How to Prepare for the Test

No special preparation is necessary.

How the Test Will Feel

There is no discomfort with this test.

Why the Test is Performed

This eye exam will show whether you have a loss of vision anywhere in your visual field. The pattern of vision loss will help your doctor diagnose the cause.

Normal Results

The peripheral vision is normal.

What Abnormal Results Mean

Abnormal results may be due to diseases or central nervous system disorders, such as tumors that damage or press on (compress) the parts of the brain that deal with vision.

Other diseases that may affect the visual field of the eye include:

- Diabetes
- Glaucoma
- High blood pressure
- Macular degeneration
- Multiple sclerosis

- Optic glioma
- Overactive thyroid (hyperthyroidism)
- Pituitary gland disorders
- Retinal detachment
- Stroke
- Temporal arteritis

Risks

The test has no risks.

Considerations

Your health care provider will discuss with you the type of visual field testing to be done.

Alternative Names

Perimetry; Tangent screen exam; Automated perimetry exam; Goldmann visual field exam; Humphrey visual field exam

References

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