

# information

## VISION AND PARKINSON'S

Parkinson's is a progressive neurological condition, which is characterised by both motor (movement) and non-motor symptoms.

Parkinson's does not cause vision loss but visual changes may occur due to impairment of eye movement. These may develop with progression of the condition. All of the Parkinson's related vision changes will impact on driving.

A neurologist will assess for vision changes as part of a routine neurological examination.

Bradykinesia (slowness of movement) is a major symptom of Parkinson's and may result in the following visual changes:

- Reduced eye blink rate
- Dry eyes
- Double vision
- Blurred vision
- Blepharospasm (involuntary closure of the eyelids)

### Reduced Eye Blink Rate

Bradykinesia results in reduced eye blink rate which may be misinterpreted as staring. This adds to the facial masking or reduced facial expression. Conscious attention to blinking will assist.

### Dry Eyes

Blinking cleanses the eyes by removing dust and impurities. When blink rate is reduced impurities build up leading to irritated and dry eyes. In addition reduced eye blink rate can result in excessive watering of the eyes as the tears are not distributed across the eye.

Conscious attention to blinking will assist and artificial tears in the form of eye drops can relieve dry irritated eyes.

### Double Vision

Parkinson's may cause double vision due to problems moving the eyes or tracking. Tracking refers to side to side eye movements and is necessary while reading. Impaired coordination and fatigue of the muscles that move the eyes can result in non-alignment of movement. Resting the eyes when this occurs should provide relief.

Examination by an optician or ophthalmologist with an interest in Parkinson's is recommended.

### Blurred Vision

Blurred vision or problems focusing may be caused by tracking problems but it may also be a side effect of some Parkinson's medications. Modifying reading glasses may improve blurred vision.

For further information contact  
your state Parkinson's organisation:  
Freecall 1800 644 189 [www.parkinsons.org.au](http://www.parkinsons.org.au)

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## Blepharospasm

Blepharospasm occurs when the muscles that close the eyelids contract or go into spasm. This may result in repeated twitching of the eyelid, difficulty in maintaining eye opening and sometimes complete closure of the eyelid will occur. The latter may require treatment and botox injection may be suggested and will be required ongoing.

Parkinson's causes impaired electrical signals and feedback in the brain which may result in the following visual changes:

- Colour and contrast vision changes
- Perceptions of movement
- Visuo-spatial orientation
- Illusions (visual misinterpretations) and hallucinations

## Colour and Contrast Vision Changes

People living with Parkinson's may find it difficult to discriminate between slight variations in colour. This may be worse for shades of blue or blue/green.

Contrast vision changes are associated with low light levels. For example, the person may be unable to clearly see a light coloured object on a light background.

## Perception of Movement

Parkinson's may result in inaccurate perception of movements and underestimation of the speed of moving objects. This is a potential problem when driving or as a pedestrian.

## Visuo-spatial Orientation

Parkinson's related problems with visuo-spatial orientation leads to difficulty assessing accurately the distance between objects. This can be evident when negotiating narrow spaces or when walking past objects.

A helpful strategy may be to reach out and touch the side of the doorway or the object. An occupational therapist will give advice about everyday activities and adaptation of the environment. Changes in visuo-spatial orientation may be associated with freezing or motor blocking. Use of visual or auditory cues can overcome these temporary difficulties. Problems with visuo-spatial orientation will impact on driving.

## Illusions and Hallucinations

Illusions and hallucinations are associated both with Parkinson's and Parkinson's medications. Older people and those with cognitive changes are more sensitive to this side effect. It is also more common in those who have had Parkinson's for a long time.

Sudden onset illusions or hallucinations may be related to an infection or another illness (delirium).

## Glaucoma and Parkinson's

Anticholinergic Parkinson's medications (for example Artane®) commonly used in the past are contraindicated with cases of glaucoma. These medications are now rarely used. Some eye drops used in the treatment of glaucoma may cause a lowering of blood pressure. Low blood pressure occurs naturally in Parkinson's and care should be taken due to the risk of falls.

## Impact and Ongoing Monitoring

Changes to vision may impair mobility and increase the risk of falls. It is important to remember that many problems with vision will not be related to Parkinson's.

**Eyesight changes should be discussed with a GP, and consulting an optician with expertise in neurological conditions is recommended.**

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