

Water drinking test (WDT)

This leaflet explains what a WDT involves. If you have any further questions, please speak to your eye care practitioner.

What is a WDT?

The WDT is a type of stress test used in glaucoma clinics. The test helps us to assess changes in the eye pressure that might occur during the day. Spikes in eye pressure can be associated with increased risk of developing glaucoma or can make glaucoma worse if you are already on treatment.

How does the test work?

When you drink a large quantity of water in a short period of time, some of this water collects inside the eyes, raising the eye pressure. This excess water leaves the eye through the normal drainage channels of the eye (called the trabecular meshwork). Depending on how well these channels are working, the eye pressure goes up and then comes back down after a variable period of time. The water drinking test is like a 'stress test' for the eye drainage channels, and helps us to understand how well your eyes drain excess fluid.

The WDT has replaced the phasing clinic where we measured eye pressures over the whole day. To limit the amount of time you spend in the hospital, we are doing this 'mini phasing', water drinking test instead.

Why you should have this test?

We have arranged this test because we need more information on your eye pressures to help determine the risk of you developing glaucoma or, if you have glaucoma already, of it getting worse. The results of this test will help us decide whether you:

- are at risk of developing glaucoma
- need to start eye pressure-lowering treatment
- need to have your glaucoma treatment changed
- Would benefit from laser treatment or surgery.

We will also examine your eyes and do other tests, such as OCT scans of the optic nerve or visual field test, as required.

What you need to do before the test

You should not have anything to eat or drink for at least two hours before the test starts. You can have breakfast but must not eat or drink after 7am at the latest, as your test usually starts soon after 9am.

If you are already on glaucoma drops, you must use them as usual unless specifically asked to stop them. It is very important that you use all your usual morning drops before you leave home. You can also take any other medication you are on as usual in the morning.

What you need to bring on the day

It is important that you bring your glasses and a list of your current medications. Please feel free to bring something to keep yourself occupied, such as a book or magazine. You may also bring your own water bottle (1 litre) for this test. There is a water fountain in the department.

What happens during this test?

You will have your vision and baseline (usual) eye pressure checked when you arrive.

After this you will be asked to drink 1 litre of water (800mls if you are of small build) within 5 minutes. Your eye pressures will then be checked every 15 minutes, at least three times, so you will need to stay in or around the department while this is being done. We may also arrange other tests in between the eye pressure checks, for example, visual fields or an OCT scan.

You should not have any food or other fluids (including water, coffee or tea) until all the eye pressure measurements have been done. You can go to the toilet if you need to.

What happens after the WDT?

After the eye pressures checks are done, you may have drops put in to dilate (make wider) your pupils if we need to examine the back of your eyes in detail or we may arrange an OCT scan of your eyes. An OCT scan takes lots of 3-dimensional images of the back of your eye and optic nerve.

Once we have finished your tests, we will discuss our findings with you and decide what treatment might help you. This may involve starting glaucoma treatment,

changing your medication, or discussing the benefits and risks of laser treatment or surgery.

We might decide that your glaucoma risk is low and that you do not need treatment now, but may benefit from monitoring for a few years, or we might discharge you back to your optometrist.

Are there any risks for this test?

If you have been advised to limit your fluid intake, for example because you have certain heart conditions or kidney failure, please let us know as we will not do this test and will discuss other options for assessing your glaucoma risk.

Even if the WDT causes your eye pressure to go up, you will not need to restrict the amount of fluid you drink for the rest of the day. Eye pressure does not change much when you drink normal amounts of water (2-3 litres) spaced out over the whole day. It is advisable to avoid drinking large amounts of fluid in a short time, particularly if your glaucoma is advanced or getting worse.

Contact us

If you have any questions please ring 0118 322 7683 or 0118 322 7681 or email rbb-tr.orthopticsreading@nhs.net

Monday to Friday between 8.30am and 4.30pm.

Orthoptic Department

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To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

RBFT Orthoptic/Ophthalmology Department, July 2023

Next review due: July 2025