

# The Connection Between Anxiety and Dry Eyes Disease

Dry eye disease is a common disease that can impair the quality of one's life significantly. Its prevalence multiplies with advancing age, stress, anxiety. The economic burden of the disease on both a patient and society can increase. The diagnosis and treatment of dry eye disease are often difficult due to the discordance between symptoms and signs of the disease.

In this article, we will look at the connection between a mental state of anxiety and dry eye disease.



Anxiety and Dry Eyes

# Connection Between Anxiety and Dry Eyes Disease

Dry eye disease is seen as one of the most common ophthalmologic disorders. It is connected or associated with symptoms like ocular discomfort, pain, dryness and foreign body sensation, which can impair the quality of life for millions of people globally. In terms of economic burden, dry eye disease has become a significant public health problem.

Below are some of the findings that exist between anxiety and dry eyes disease

- Researchers have revealed that there is a connection between anxiety and dry eye disease in patients with normal or mildly reduced tear production. It also revealed that subjects with dry eyes disease showed an increased risk of experiencing severe psychological anxiety.
- The scores of the psychological questionnaires, which include Shortened Health Anxiety Inventory, Shortened Beck Depression Inventory, and Beck Anxiety Inventory, had a significant correlation with the ocular surface disease index score, whereas there is no significant relationship between dry eye signs and symptoms.
- The anxiety usually affects the development of dry eye symptoms and is one of the causes of the inconsistency between symptoms and signs of dry eyes disease. Dry eyes disease is associated with higher symptom scores of anxiety, as well as with an increased prevalence of the psychiatric conditions. Among the dry eye disease patients, the severity and prevalence of anxiety are high among patients with primary Sjogren's syndrome.

- Regarding the connection between dry eyes disease and anxiety, several mechanisms play a significant role. A clear finding shows that anxiety status usually influences the connection between dry eyes disease and Val66Met single-nucleotide polymorphism in a brain-derived neurotrophic factor.
- Anxiety also lowers the threshold for perception of pain or discomfort caused by dry eyes disease by affecting cognitive modulation of attention.
- Somatization, a frequently reported condition in anxiety, usually lead to predispose in the development of dry eye disease. Conversely, dry eye disease, including chronic discomfort and visual impairment also worsen anxiety mood.
- Anxiety lowers the threshold for perception of pain or discomfort caused by dry eyes disease by affecting cognitive modulation of attention.

## **Relaxation**



## Dry Eyes Relaxation Meditation

The first step is to **seek professional advice from your gp or healthcare practitioner** if you feel that your eye problems are stress-related, probably the most obvious step to take is to try to relax. Think about your symptoms as warning signs—your body is trying to respond to a threat, and it's hurting you. The best thing to do is to try to calm down your brain's response to danger.

You probably are familiar with what can de-stresses you better than anyone else. Here are some ideas to try:

- Taking a warm relaxing bath and focusing on merely letting go and relaxing
- Meditation. Proven to de-stress and relax oneself.
- Taking slow, deep rejuvenating breaths, sending the air into your belly.
- Write your feelings into a diary to keep track of your stress levels.
- Exercise has been proven to pump the body, then allowing it to relax afterwards.

As always, you'll feel better if you make sure to get enough

sleep and eat well. Even though you're busy, taking at least a few minutes to relax, consciously will help your body calm down.

If you feel stressed or worried most of the time, you may need to make more significant changes. You may be trying to do too much in too little time and need to cut back. Alternatively, you may have an anxiety disorder, which is highly treatable. If you always feel like you're on edge, it might be time to speak with a doctor or counsellor to make sure that you're emotionally and physically healthy.

When you have found your own way to deal with stress, you may find that your eyes should revert to a healthy state. Stress-related eye issues should be temporary and relatively easy to fix. If you, however, continue to have problems, make sure to visit your specialist eye doctor. Our Specialist Ophthalmologist here at The Dry Eye Clinic is ready to assist you so that your eyes are as comfortable as possible. To Book a session with us click this [link](#).

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## **Meibomian Gland Probing in the UK**

### **Meibomian Gland Disorder**

There are various eye-related illnesses and conditions, including many uncommon ones that few individuals may know about. The vast majority know about the normal ones, for example, glaucoma, or macular degeneration. In any case,

meibomian gland disorder (MGD) is an odd blend of the two. It is extraordinarily common.

MGD, called meibomianitis as well as blepharitis, is a condition wherein the meibomian glands inside the eyelids fail to work correctly. Under ordinary conditions, these glands are in charge of creating limited quantities of oil that helps keep the eyes lubricated by mixing with the tears in the eyes. Without this substance, the watery segment of tears would evaporate rapidly, leaving the eyes feeling exceptionally dry and aggravated.

## Blepharitis



Each eye have about 50 to 70 meibomian glands with the upper eyelids, as a rule, having marginally more than the lower eyelids. They can become blocked by oil that has solidified. When this occurs a number of issues can arise. The obstructed glands can swell, loading up with solidified oil that is unable to be secreted into the eye and becomes unfit for its purpose. These swellings are called eye cysts and can end up contaminated. These cysts form red bumps that can develop to around a centimeter wide. At times these blockages can deplete individually, or with the use of a heat pad or a wash cloth soaked in warm water. They may also need to be treated by a specialist.

Blockages can be brought about by dried liquids, dead skin cells or even little parasites called Demodex vermin that live inside the glands. Specific cleansers for washing the eyelids can help with the greater part of these causes, except parasites which will require a professional to prescribe medications to deal with them.

Practically the majority of dry eye illness is related to MGD, which influences an alarming number of individuals in the world. MGD influences almost 60% surprisingly and is substantially more common in individuals over 40 years of age. Be that as it may, not all demographics are at equivalent risk. Between 50-70% of the population of nations like Thailand, Japan and China are influenced, compared to just 3-20% of individuals in the US, Australia, and Canada.

An individual's eye cleansing routine and use of restorative products can also contribute towards MGD, particularly those products which are used near the edges of the eyes. Being cautious during the application of such products will decrease the risk of inadvertently blocking the meibomian glands.

## **Indications of Meibomian Gland Dysfunction**

The indications of meibomian gland dysfunction are the same for all intense and purposes as those of dry eye disorder. These include red, irritating eyes, foreign body sensations, obscured vision and the impression of an outside body on the eye. Sadly, these symptoms alone are not sufficient to analyse the issue, as they may point to countless diverse eye-related issues. It is essential to book an appointment with an eye specialist who can provide a full examination and provide expert clinical analysis.

During the consultation, the specialist will probably apply light pressure to the eyelid trying to try to release the liquid inside the meibomian glands. Depending upon the findings of the eye specialist, a finding of MGD may be made.

## **Treating Meibomian Gland Dysfunction**

To treat the condition, either the glands have to be unblocked or the oil that the glands are not adequately producing must be enhanced. Both of these methodologies are probably going to incorporate specific eye drops, intended to either release and alleviate symptoms or to saturate the outside of the eye.

## **Eye Lid Cleaning**

The methodology of essentially applying a warm moist cloth will liquefy and lubricate the dried glands, opening them up. Fortunately, there are now more effective ways of treating MGD; for example, specialist equipment intended to test and expand the openings of the meibomian glands to allow the oil they secrete to flow efficiently.



Meibomian gland testing: This is a straightforward method performed by your eye specialist to unclog the opening of your meibomian glands. After analgesic eye drops are applied to the eye, your specialist utilises a hand-held instrument to apply heat to the openings of your meibomian glands, close to the



base of your eyelashes. This is an effective method for clearing blockages and freeing up the MGD manifestations. However, it does not keep the condition from resurfacing later on. Due to the danger of contamination presented by meibomian gland blockages, antibacterial eye drops may likewise be endorsed on occasions. However, they may not be required and should only be utilized under a specialist's suggestion.

Dietary enhancements or change can help and an adjusted intake of Omega-3 unsaturated fats can be particularly beneficial. These are found in fish and nuts and will help with the creation of oils inside the eyelids and skin. They offer the advantage of decreasing side effects, yet counteracting future issues too.

Similarly, as with any eye-related issue, your eye specialist will probably make a precise conclusion and tailor a good treatment plan for patients based on their individual needs. Anybody experiencing dry, aggravated eyes should book for an assessment with an eye care specialist. The earlier MGD is treated the better.

## **Am I eligible for treatment?**

Should you experience is the ill effects of meibomian gland dysfunction or the evaporative type of dry eye disorder then yes.

Dry eye disorder is classified into two main types:-

1. The Aqueous deficiency type (brought about by a deficient tear flow) due to poor discharge from the lacrimal glands.
2. The Evaporative type (brought about by evaporation of the tears) due to poor oil layer from Meibomian Gland Dysfunction.

It is additionally impacted by the eyelid structure, the visual surface and use of contact lenses.

There are numerous other affecting variables in dry eye, for example, prescriptions, hypersensitivity, past medical procedures, eye infections, Sjogren's disorder, thyroid problems, rheumatoid joint inflammation and hormones.

If you need help, guidance and treatment of your Meibomian Gland Disorder and want to find out more about Meibomian gland probing in the UK then please do not hesitate to fill out our test and contact us to speak to our highly experienced eye specialists.

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## Effects of Roaccutane on Eyes

Medicine pills used to treat severe skin acne have been found to have serious side effects that are significant in creating eye issues – for example, red-eye, eye infections and dryness, as discovered in a new study from Israel.

Isotretinoin, which passes by brand names including Roaccutane, Claravis and Amnesteem is known to cause these reactions. The drugs are well known for treating severe instances of acne in teenagers and adults.

Six million individuals worldwide have used Roaccutane (previously known as Accutane) since 1982. Eye issues are increasingly usual in individuals with skin inflammation. However, in a new study of approximately 15,000 Israeli adults and adolescents, 14% of those taking Isotretinoin were treated for eye conditions after using this medication.

# What is Roaccutane?



Accutane-Associated-  
with-Double-Risk-of-  
Eye-Disorders

Roaccutane is a regularly used acne medication. It has not been sold as Roaccutane (or Accutane) since 2009, yet the name has stuck. We will refer to it as Roaccutane for the rest of this article.

## What is it for?

It is used to treat extreme or stubborn acne and other scarring skin conditions, for example, rosacea or problematic skin-colouring. It is commonly something of a final treatment – as Specialists will possibly recommend it for severe cases and when different medicines have failed. However, it can be beneficial and it is well known because around 90% of patients see a significant improvement in their symptoms.

The issue is that Roaccutane is ground-breaking and it accompanies a considerable list of symptoms that incorporate a scope of visual issues. Some are gentle, while others are progressively extreme. This must be taken into consideration when using Roaccutane. One should also take into consideration the implications for the patient's eye health alongside the side-effects.

## **How does Roaccutane work?**

The straightforward answer is that it is not clear how Roaccutane functions. A few examinations propose that it can cause apoptosis in different cells in the body. With acne, this affects sebaceous gland cells. A lot of sebum overwhelms the skin glands, which means the pores become obstructed with dead skin cells. When this occurs, skin can end up red, swollen and harsh.

Roaccutane decreases the overall production of sebum and the amount of oil created in the body's sebaceous glands. This means the skin is less oily and that as a result skin inflammation should clear up.

### **Effects on eyes**

Roaccutane is solid stuff and shockingly the procedures that it kickstarts are not confined to sebaceous glands. The 'drying out' impact overflows the tear glands and meibomian glands – oil glands located along the edge of the eyelids emit an oily layer to prevent your eyes from drying out. Alongside the drier, less oily skin, you may get the undesirable side effect of dry eyes. this can prompt obscured vision, conjunctivitis and decreased vision in the evening.

### **Short term reactions of Roaccutane**

Dry eyes – those using Roaccutane often encounter dry eyes because of its oil-decreasing properties. Patients can be helped by avoiding the use of contact lenses and not using eye drops whilst using Roaccutane.

### **Obscured vision – Roaccutane treatment may make your vision obscured.**

More tears – Roaccutane can also cause your eyes to create more tears because of its impact on oil generation – again it is advised to limit the use of contact lenses.

Swollen eyes or conjunctivitis – Roaccutane can make your eyes swollen and irritated around the whites and eyelids. In these cases, it can help to gently clean your eyes and avoid smoky dry atmospheres.

## **Longer-term reactions of Roaccutane**

‘Dry eye disorder’ – Dry eye disorder may arise where dryness occurs over a more extended timeframe.

Waterfalls – there have been a couple of situations where more young patients created waterfalls after using Roaccutane, which might be due to a diminished capacity to adjust to light or darkness.

## **Night vision**

One of the more abnormal impacts of Roaccutane on your eyes (and potentially one of the simpler ones to overlook) is the effect that it can have on your night vision. It can result in a somewhat diminished capacity in the darkness, ie night visual deficiency (nyctalopia).

## **How can it occur?**

Roaccutane is part of a group of medications called ‘retinoids’ and these interfere with how your retina forms an inward nutrient A. This nutrient is significant in helping you to see and it appears that a decreased grouping of it affects your eye’s rods and cones (the two kinds of photoreceptors in the human retina) which battle with adjusting to haziness or glare.

The outcome is that it is harder to see around evening time or in situations where light dimensions are low or change quickly. As humans, none of us can see very well in low-light conditions. However, if you see a patterned distinction, you should consult with your eye Specialist. Fortunately, issues with night vision will, in general, vanish inside a long period of taking the medication and can benefit from outside

intervention by an observed course of Vitamin A.

## **Keeping your eyes healthy**

Roaccutane use is common amongst patients who have become exasperated by an absence of results from other medicines. Needing to see improvement is reasonable. However, reactions ought to be comprehended and paid attention to. Roaccutane can influence your eyesight from a mild inconvenience and dryness to visible visual changes.

Fortunately, a significant number of symptoms will clear up after treatment. However, sometimes, not all go away. There are uncommon situations when symptoms can be increasingly genuine. If you experience any of those, or you feel something is wrong and you cannot pin it down, it is essential to seek proper qualified medical advice from an experienced Consultant. In case you are undergoing treatment to acquire the outcome you need. It can also help to research how to maintain and keep yourself safe from dry eyes. In case you are being troubled by irritated, red or dry eyes, you can find out about dry eye medicines, for example, eye drops or swapping your contact lenses for spectacles.

If you need help, guidance and treatment solutions for the adverse effects of Roaccutane on your eyes and want to find out more about the best possible solutions for your eye problems in the UK then please do not hesitate to fill out our test and contact us to speak to our highly experienced eye specialists.

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# Eye Drops for Dry Eyes

Lubricant drops often known as “artificial tears” are used as part of the treatment regimen for [dry eyes](#). In short, dry eyes may be caused by a deficiency in:

- The mucin layer of the eye
- The water layer of the eye
- The oil layer in the eye leading to increased evaporation (most common cause). This is known as MGD or Blepharitis.

Eye drops are easily available and do not need a prescription. They can be purchased on-line, at your pharmacy or local opticians. Eye drops can be used for treating the associated inflammation that is present in dry eye, however, eye drops only aim at replacing the poor tear film with a substitute. It does not treat the cause of the underlying problem.

## Eye Drops – Lubricants

There are various forms of dry eye drops available. These can be briefly divided into the following categories:-

### A. Drops

Such as Hypromellose, Carmellose and Polyvinyl alcohol eye drops. These are generally short acting.

### B. Gels

Such as Viscotears, Xalin gel and Hyaluronidase based substances. These are gel preparations which have the advantage of being longer lasting, but are known to temporarily blur your vision.

## **C. Drops which target MGD and Blepharitis**

There are certain drops, such as Emustil and Systane Balance which target MGD and [Blepharitis](#). They have a more oily nature and are aimed at replacing the oil layer which is deficient in oil. These are also available in a spray form known as Liposome spray.

## **D. Eye Ointments**

These are much longer lasting preparations and are used before going to sleep. They are thick and oily and blur vision. Unfortunately, they do not tend to last long enough to be present in the eye upon waking after sleep leaving you with severe dry eye symptoms in the morning.

## **E. Preservative Free Drops**

In patients with more severe dry eye the frequent use of preservatives can be toxic to the eye and in such cases preservative free drops are advantageous. These tend to be more expensive. It is preferable, in the first place, to use preservative free drops and these should always be used for people who wear contact lenses as the lens becomes a reservoir for preservatives.

Patients often find that drops are insufficient to control their symptoms despite their adequate use. This is generally due to the failure to treat the root cause where possible. This is where we at The Dry Eyes Clinic make every effort to offer treatments which come closer to treating the source of the problem. In MGD/Blepharitis we treat the meibomian glands with Lipiflow. In dry eye cases associated with decreased water layers we investigate the underlying disease mechanism, attempting to target the appropriate medicine if possible.



It is beneficial to try different types of drops and gels under the guidance of an ophthalmic professional to find the ones that suit you best.

## **Inflammation and Dry Eye**

Unfortunately, dry eye is associated with inflammation which occurs as a result of the dry eye or may be the cause of the dry eye itself. An Ophthalmologist, experienced in treating dry eye meibomian gland disease, may often add an anti-inflammatory drop or other medication to assist with redressing the associated inflammation and symptoms.

These medications come in four forms:-

### **A. Cyclosporin Eye Drops**

This drop inhibits the inflammatory pathway and is only used in Specialist Departments such as The Dry Eye Clinic.

### **B. Corticosteroid Drops**

These are wonderful drops for treating associated inflammation. They often produce rapid improvements. Unfortunately, long-term use of corticosteroids can lead to side effects such as glaucoma (increased pressure in the eye) and/or cataracts. These drops do, therefore, require supervision by an ophthalmic professional.

### **C. Omega 3 Fatty Acids**

Omega 3 fatty acid, especially in high doses, are useful in reducing inflammation. They need to be given in adequate doses. The over-the-counter preparations are usually insufficient in strength and consultation with a suitably trained ophthalmic professional is recommended to get the dosage right for the individual patient.

## **D. Tetracycline Tablets**

Tetracycline medication is an antibiotic which has anti-inflammatory properties. Used in low doses for periods of about 6 months they are useful adjuncts MGD/Blepharitis suffers. They have side effects such as photo toxicity (sensitivity) and need to be taken under the supervision and care of a doctor.

## **E. Serum Eye Drops**

Serum eye drops are only used in refractory dry eye, where no other treatment has been proven to be beneficial. Normally, the patient's own blood is taken and processed in a laboratory. The serum is removed and refrigerated and is used by the patient. This is only offered in specialised centres within the UK and needs funding approval prior to the process being undertaken. NHS blood services are often involved in the process.

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