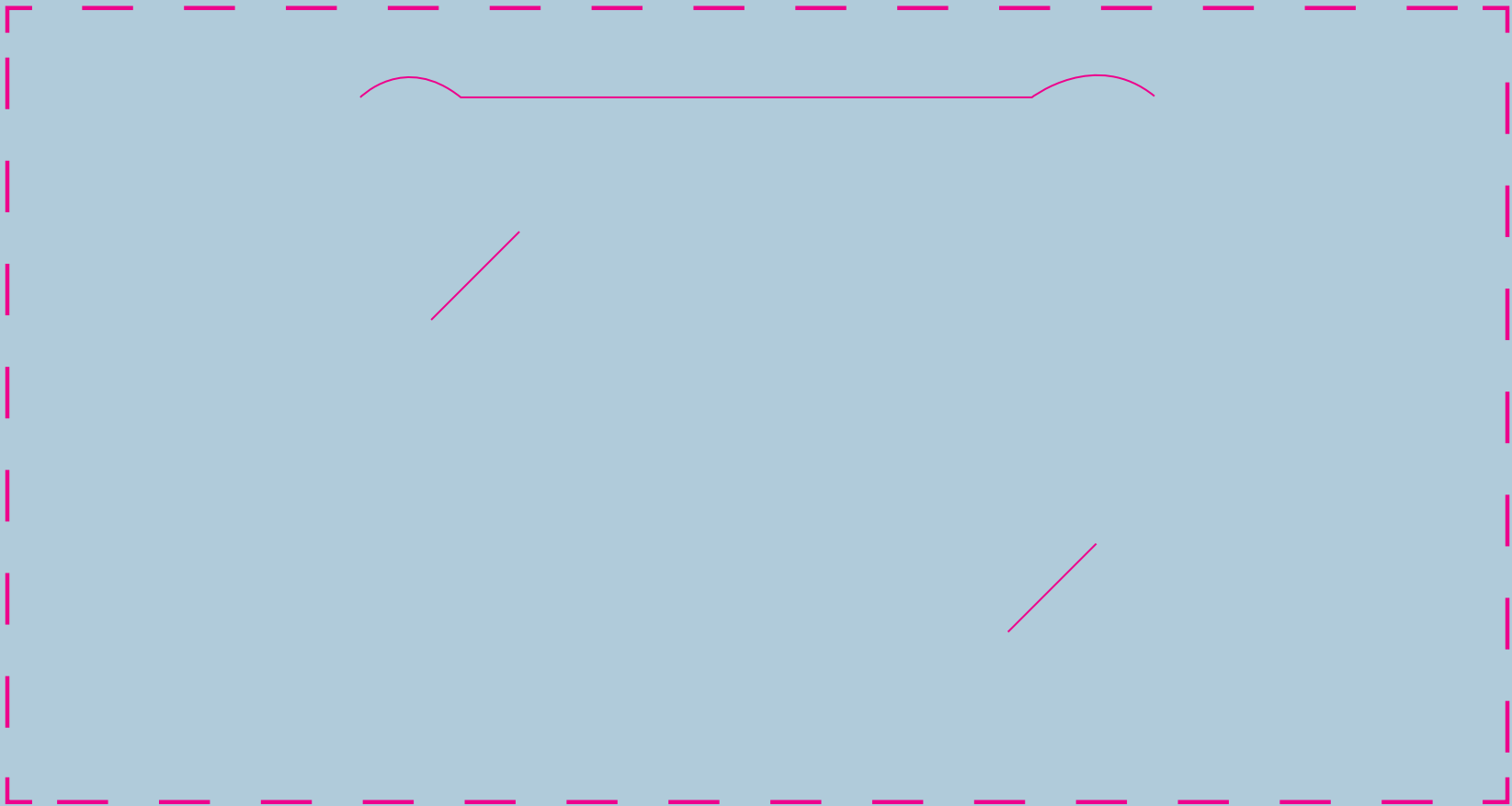




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# DRY EYE

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## PERSONALIZED TREATMENT FOR DRY EYE RELIEF

There are nearly 30 million people in the United States and over 300 million worldwide who have been diagnosed with dry eye. Most of these patients have learned to live with eye discomfort and have become dependent on remedies that provide only temporary relief. If this is your story, then you have come to the right place.

At Associated Eye Care, we take pride in providing relief to patients suffering from dry eye. With advanced diagnostic testing designed to determine the root cause of your dry eye symptoms, our team of specialists are able to accurately determine your personalized treatment plan, providing relief you never thought was possible.

The following information will help you understand dry eye disease and the many new treatment options available to you at Associated Eye Care.

## OUR COMMITMENT TO EXCELLENCE

Associated Eye Care is proud to be an Accredited Dry Eye Center. Our trusted doctors are experts in the field of dry eye management and new technologies ensure our patients receive the best care. Experience, paired with state-of-the-art technology, makes us the premier dry eye center in the Twin Cities East Metro and Western Wisconsin.

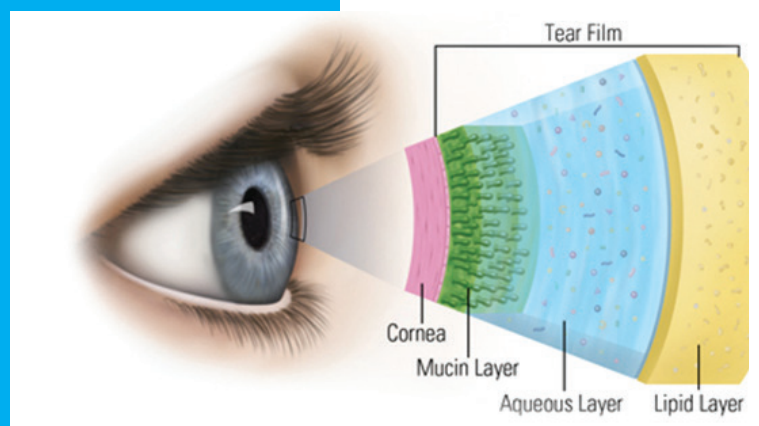


# DRY EYE

Dry eye disease is a common condition in which there is a deficiency in the quality and/or quantity of tears produced by the eyes. Tears perform many important functions for the eye including cleaning, lubrication, providing nutrition and maintaining a smooth surface to refract light and provide clear vision. A healthy tear film contains a complex balance of water, salts, mucin, and oils produced by glands on the eye and eyelids. If any of these components are out of balance, dry eye symptoms can occur.

Typical symptoms of dry eye include dry or gritty sensation, scratchiness, itching, burning, pain, eyelid heaviness, intermittent blurred vision and intermittent tearing. Symptoms are usually worse later in the day, during prolonged use of the eyes, and in conditions of heat, wind and low humidity.

Many patients with dry eye disease complain of intermittent tearing and watery eyes. Normally the lids produce a small amount of tears to keep the eyes lubricated and healthy. If this baseline tearing is of poor quality or insufficient quantity to keep the eyes healthy, a message will be sent to the brain to cause a reflex flow of tears from the main lacrimal gland. This reflex tearing results in a large volume of watery tears that accumulate in the eye or even run down the cheek. These symptoms may seem counterintuitive, but to prevent the eye from watering, one must treat the dryness that triggers it.



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# HOW DO I KNOW IF I HAVE DRY EYE DISEASE?

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Please put a check mark next to each symptom you have experienced in the last 30 days:

- Dry or gritty sensation in the eyes
- Itching
- Burning
- Eye fatigue or eyelid heaviness (eyes feel tired when you know you have gotten plenty of rest)
- Intermittent blurred vision
- Intermittent tearing and watery eyes
- Sensitivity to light
- Eye redness
- Stringy mucous in or around the eyes
- A sensation of having something in your eyes
- Difficulty wearing contact lenses

Total number of symptoms: \_\_\_\_

Scoring: If you selected two or more symptoms, you may have dry eye. A dry eye evaluation is recommended to properly diagnosis and treat your condition.

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# MEET YOUR DOCTOR

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Dr. Capelle joined the Associated Eye Care team as the Ocular Disease Fellow in July 2017. Upon completing her fellowship with Associated Eye Care, Dr. Capelle remains on staff as an associate practicing comprehensive optometry with an emphasis in glaucoma. She earned her BA in psychology from Concordia College in Moorhead, MN. After finishing her undergraduate degree she spent the next four years as a Certified Ophthalmic Assistant before attending optometry school at Western University College of Optometry in Pomona, CA. During her four years at Western University, she was a member of the optometric honors society, Beta Sigma Kappa. She was on the Dean's List all four years and graduated with highest honors as Salutatorian. Dr. Capelle is a Diplomat of the American Board of Optometry and is also a Fellow of the American Academy of Optometry. Dr. Capelle has a special interest in glaucoma, ocular disease and dry eye treatment. Dr. Capelle is originally from Saint Paul, MN. She enjoys running, and has completed 18 marathons to date! She also enjoys spending time with her husband and their two springer spaniel dogs, Isabelle and Oliver. In her free time, she likes to go to her cabin on Woman Lake in Hackensack, MN. Dr. Capelle also enjoys spending time with her husband, son and two springer spaniel dogs.



Dr. Fedor received his Doctorate of Optometry degree in 2005 from the Pacific University College of Optometry in Oregon. He graduated with honors and was a member of Beta Sigma Kappa Optometric Honor Society. While on clinical externship, he trained at Mayo Clinic affiliated sites. Dr. Fedor has been practicing in the Twin Cities since 2005. His interests in eye care include primary care for older children and adults, the diagnosis and management of dry eye and ocular disease, as well as urgent care services. He enjoys getting to know his patients personally and establishing lifelong relationships. He also spends time volunteering with various eye care services such as the Special Olympics. When not at the office Dr. Fedor enjoys spending time with his wife and kids. He also loves being outdoors, fishing, hunting or camping in the Boundary Waters.



Dr. Nicole Harris received her bachelors in Biology at the University of Minnesota. After earning her undergraduate degree, she spent the next four years at the Illinois College of Optometry in Chicago. During her time as an optometry student rotating through various clinics and specialties, she discovered her passion for ocular disease and urgent care management. She graduated Magna Cum Laude and was a member of Beta Sigma Kappa International Optometric Honor Society and Tomb & Key Honor Fraternity. Dr. Harris is a Wisconsin native, born and raised in Appleton, WI. In her free time, she enjoys cooking, reading, golfing, attending concerts, and spending time at her family cabin. Even though she's now a Minnesotan, she still loves cheering on the Brewers, Packers, and Bucks.



Dr. Lang joined Associated Eye Care in 2006. He received his Doctor of Optometry degree from The New England College of Optometry in Boston, MA. He was a member of Beta Sigma Kappa Optometric Honor Society, and received several awards for excellence in patient care and contact lens expertise. Dr. Lang then completed a cornea and specialty contact lens residency in Boston, MA. Through this additional education, he gained expertise in dry eye and ocular diseases, therapeutic contact lenses and surgical co-management. Dr. Lang has been involved in dry eye clinical research and FDA trials for many years including medications and therapeutic devices. He writes articles for several publications on the topic and is actively involved in lecturing to colleagues at various meetings locally and nationally. He is a Diplomat of the American Board of Optometry, a fellow of the American Academy of Optometry and an Adjunct Clinical Faculty for the Illinois College of Optometry and Salus University. He is also the residency coordinator for Associated Eye Care's optometric residency program, is actively involved in lecturing on eye care innovations, and participates in ongoing clinical research. Dr. Lang, his wife and son enjoy snowshoeing, skiing and spending time outdoors. He also enjoys playing golf, fly-fishing, and fly-tying.



Dr. LaVallie joined Associated Eye Care as the Ocular Disease Fellow in July of 2015. Upon completing his fellowship with Associated Eye Care, Dr. LaVallie remains on staff as an associate practicing comprehensive optometry. He completed his undergraduate studies in biomedical sciences at the University of Wisconsin-River Falls prior to attending the Indiana University School of Optometry. He graduated magna cum laude, and received several awards for academic excellence in optometry. During his clinical externships he trained at the world renowned Bascom Palmer Eye Institute in Miami, FL. He has a special interest in dry eye and ocular disease, surgical co-management, and geriatric optometry. Dr. LaVallie is a Minnesota native, and is excited to be practicing optometry near his hometown of Woodbury, MN. He enjoys spending time with his family and friends, traveling, cooking, and scuba diving.

**ALL DRY EYE EVALUATIONS ARE COMPLETED BY A DRY EYE SPECIALIST**



# DROPS, GELS, OINTMENTS, & VITAMINS

Dry eye disease has a wide range of severity and in some instances may be sight threatening. Treatment initially begins with artificial lubricants, usually drops, given 2 to 6 times a day.

Artificial tears work best when given on a scheduled basis rather than in response to symptoms. After beginning therapy with artificial tears, it may take several weeks of continuous use before long lasting improvement in symptoms is achieved. Not all artificial tears are created equal. Many have preservatives that can cause further irritation, especially if used frequently. Preserved artificial tears may be used up to 4-6 times a day. Preservative-free artificial tears should be used for sensitive eyes or when more frequent use is required. More severe cases of dry eye may require the use of thicker ointments or gels. Hot compresses using a microwaveable heat mask may also be utilized to improve the function of the lubricating oil glands in the eyelids.

Consider supplementing your diet with omega-3 fatty acids. Recent studies have shown that omega-3 fatty acids can improve the tear quality and reduce dry eye symptoms. While omega-3 fatty acids can be found naturally in many food sources (i.e. wild salmon and herring), maximum benefits for adults are believed to be achieved with a daily dose of 2000-4000 mg. If you are not currently taking this supplement, consider starting with 1000 mg daily and working up to 2000-4000 mg per day.

Associated Eye Care offers a wide variety of drops, gels, ointments and vitamins for dry eye therapy. These are available for purchase in our optical shops as well as the AEC Online Marketplace.

**Visit our Online  
Marketplace at**

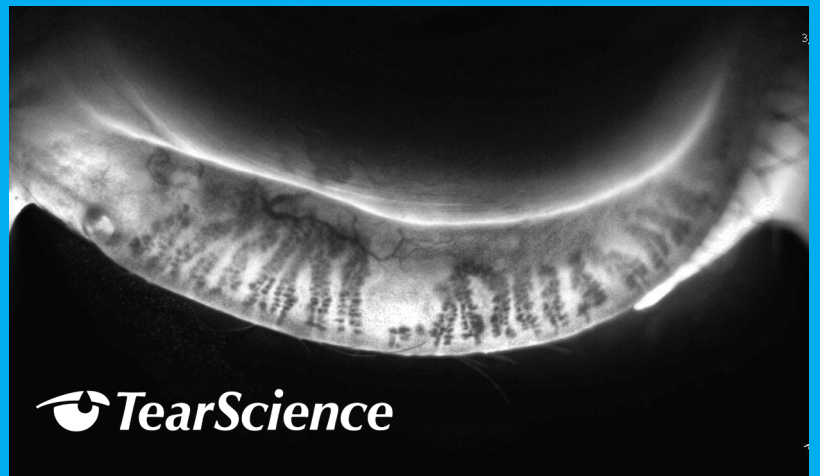
[www.associatedeyecare.com!](http://www.associatedeyecare.com)

# DETECTING DRY EYE

Successful treatment begins with understanding the root cause of your symptoms. At Associated Eye Care, we use specialized testing to accurately determine the cause of your dry eye and to develop a personalized treatment plan.

## **Meibography & Tear Film Imaging**

Associated Eye Care is proud to offer a series of meibography and tear film imaging technologies. These non-invasive diagnostic tests capture live images of your tear film and measure lipid (oil) content and quality. The meibomian (oil) glands of the eyelids are also imaged to assess their anatomy and function. These tests will allow your doctor to determine if you should undergo the LipiFlow® treatment or other tear therapies.



## **TearLab™**

TearLab™ is used to measure osmolarity, which is the saltiness of your tears. As osmolarity in your tears increases, ocular surface cells become damaged. Using the TearLab™ device, your highly trained technician will take a sample of tears from each eye to assess the quality of your tear film and the overall health of your ocular surface. TearLab™ aids in accurate and early detection of dry eye disease and provides information to follow disease severity over time.

## **InflammaDry®**

Dry eye disease causes inflammation which contributes to bothersome symptoms and damage to the ocular surface. In some cases, inflammation is present before a patient experiences any dry eye symptoms. InflammaDry® is the first in-office test capable of detecting MMP-9, an inflammatory marker that is often elevated in the tears of patients with dry eye disease. By recognizing elevated levels of MMP-9, InflammaDry® is able to identify patients that may be missed with other dry eye testing methods.

## **Slit Lamp Examination**

Your doctor will perform a thorough slit lamp examination of the eyes and eyelids to assess for the presence and severity of dry eye. Special stains may be used to better visualize the tears and ocular surface during your exam. Additional exam tests may be utilized to better identify the cause of your dry eye.



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# TREATING DRY EYE

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When traditional methods of treating dry eye (i.e. drops, gels, ointments) do not provide adequate relief, your doctor may recommend advanced dry eye therapies.

## **LipiFlow®**

LipiFlow® is a revolutionary treatment that is now available to patients who suffer from dry eye. With just a single treatment, LipiFlow® can provide relief for up to one year. LipiFlow® delivers controlled heat to the inner layer of the eyelid and exerts gentle pressure to release lipids or oils from blocked meibomian glands. It treats both upper and lower eyelids at the same time, without causing damage to other delicate tissues and structures within the eye. The treatment takes only 12 minutes and is pain free. By unblocking the glands with this revolutionary thermal pulsation technology, the body can resume its natural production of oil and keep the eyes lubricated.

## **Punctal Plugs**

Tears normally drain off of the eye and into the nasal cavity through a hole, or punctum, in each upper and lower eyelid. Permanent or temporary plugs may be placed in these holes to retain tears on the surface of the eye for a longer period of time.

## **Autologous Serum Eye Drops**

These are eye drops made from your own blood serum, which are rich in healing properties and nutrients. The serum from your blood is diluted with a sterile, preservative-free solution to produce eye drops that are unique to you.

## **Amniotic Membrane**

Amniotic membrane can be obtained and used for a variety of ocular conditions due to its anti-inflammatory and healing properties. While temporarily positioned over the eye, it can result in rapid healing of the ocular surface.

Associated Eye Care is proud to be one of the first practices in the country to provide these exciting, new forms of treatment. In addition, your doctor may recommend other dry eye therapies, such as **therapeutic contact lenses** or other **prescription medications**, as part of your personalized treatment plan.



# PREPARING FOR YOUR DRY EYE EVALUATION

At your dry eye evaluation, you will undergo specialized testing in order to create a personalized treatment plan. Because we use sensitive testing instruments to identify the root cause of your symptoms, please follow the instructions below to avoid any delays in your care:

1. Do not wear any eye makeup to your dry eye evaluation.
2. Do not put contact lenses in your eyes the day of your dry eye evaluation. They may be inserted after the testing is completed.
3. Do not use ointments or gels around your eyes the evening prior to your dry eye evaluation.
4. Do not use any Vaseline or oily cleansers to remove eye makeup.
5. Do not use any lubricating drops on the day of your testing.
6. Do not use any prescription eye drops (i.e. glaucoma drops) less than two hours prior to testing.
7. Do not rub or touch your eyes two hours prior to testing.
8. Do not apply eye creams, facial cream, mascara, or sunscreen prior to the testing.



# AFFORDABLE FINANCING

Get relief today, pay tomorrow. Associated Eye care offers 0% financing for 6 months through CareCredit. CareCredit is a healthcare credit card that allows patients to finance medical procedures not fully covered by insurance.

The amounts in these columns are the amount to be paid if you choose to make equal monthly payments and take advantage of the promotion. If you are interested in financing options, please check eligibility and sign up at [www.carecredit.com](http://www.carecredit.com).

<b>Procedure Fee</b>	<b>6 Month No Interest Payment Plan*</b>
\$500	\$83
\$700	\$117
\$900	\$150

\*Under the no interest payment plan, you are required to pay minimum monthly payments. In order to avoid interest charges, the promotional purchase must be paid in full within the promotional period.

## **Flex Spending?**

Did you know you can use your flexible spending account (FSA) or health savings account (HSA) for dry eye treatment? Your flex funds will expire at the end of the year. Use it before you lose it!



## FAQ

### **How do I know if I have dry eye?**

Patients with dry eye disease typically experience dry or gritty sensation, scratchiness, itching, burning, pain, eyelid heaviness, intermittent blurred vision and intermittent tearing. If you notice fluctuations in your vision, particularly after tear film stressors such as reading or computer work, you may have dry eye syndrome. Your eye doctor will conduct a series of tests to properly diagnosis and treat your condition.

### **What causes dry eye?**

There are many factors that can lead to dry eye. As you age, you may secrete fewer tears, leading to increased dryness. Dry eye is more common in women, especially post-menopausal women, due to hormonal changes. Patients with diabetes, rosacea, Sjogren syndrome, thyroid, and auto-immune diseases are at a greater risk for developing dry eye disease. Environmental factors, such as low humidity and high altitude, as well as wearing contact lenses, may worsen your dry eye symptoms.

### **My eyes are always watery or teary, how can I have dry eye?**

A healthy tear film contains a complex balance of water, salts, mucin and oils produced by glands on the eye and eyelids. When the tear film is out of balance many patients report watery eyes. This occurs because the eye creates excessive tears when it is dry. However, these new tears do not “stick” to the surface of the eye and do not provide adequate lubrication.

The background of the top section features a dark teal color with several 3D question marks scattered across it. One question mark in the upper right is significantly larger and brighter than the others, appearing to glow with a white light. The other question marks are smaller and have a more muted, dark teal color, creating a sense of depth and focus on the central theme of inquiry.

## FAQ

### **Is dry eye treatment covered by my insurance?**

The diagnosis and evaluation of dry eye is typically covered by most medical insurance plans. Insurance coverage for dry eye therapies will vary from treatment to treatment. Please contact your health insurance provider to determine plan eligibility and coverage. Associated Eye Care offers zero-interest financing through CareCredit. Our surgery schedulers are available to assist you with payment options and any additional questions you may have.

### **How Does LASIK and/or cataract surgery affect dry eye?**

Some patients experience increased dryness following refractive or cataract surgery. This is caused by a decrease in tear production and typically subsides within 3-6 months after surgery. When considering a vision correction procedure such as LASIK or cataract surgery, it is important to also be evaluated for ocular surface health issues.

### **What if I'm not getting enough relief from over-the-counter artificial tears?**

When traditional methods of treating dry eye (i.e. drops, gels, ointments) do not provide adequate relief, your doctor will refer you to Associated Eye Care's Dry Eye Program for further evaluation and testing. Our dry eye specialists use state-of-the-art technology to accurately determine the root cause of your symptoms and create a personalized treatment plan for dry eye relief.

# WHERE TO FIND US

At Associated Eye Care, we're committed to bringing world-class eye care closer to home in a way that's more convenient for you. That's why we have several convenient locations for you to choose from.

**STILLWATER**  
2950 Curve Crest Blvd W  
Stillwater, MN 55082

● Associated Eye Care ● Target

**WOODBURY**  
City Place Medical Building  
237 Radio Drive, Suite 100, Woodbury, MN 55125

● Associated Eye Care ● Whole Foods

**HUGO**  
14688 Everton Ave. N, Suite 106  
Hugo, MN 55038

● Associated Eye Care ● Wagners Garden Center

**HUDSON**  
411 Stageline Road, Suite 271  
Hudson, WI 54016

Associated Eye Care is located in the North Wing of the Hudson Hospital & Clinic.

**NEW RICHMOND**  
821 West 8th Street  
New Richmond, WI 54017

● Associated Eye Care ● Westfields Hospital

## Affiliated Clinics In:

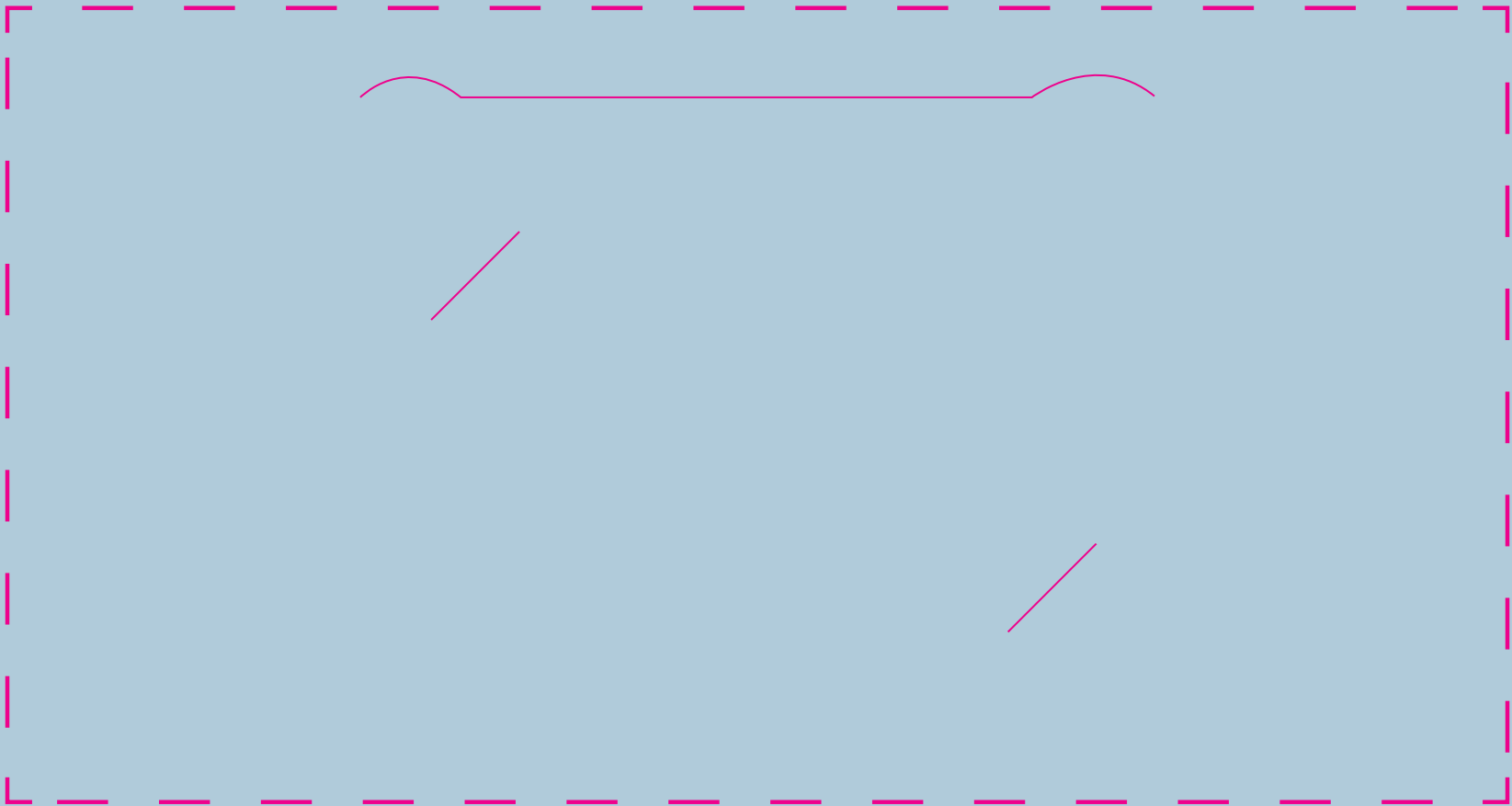
**AMERY**  
Amery Hospital & Clinic  
265 Griffin Street E, Amery, WI 54001

Patients seeking appointments at Amery Hospital & Clinic, please call 715.268.8000.

**BALDWIN**  
Western Wisconsin Health  
1100 Bergslien Street, Baldwin, WI 54002

Patients seeking appointments at Western Wisconsin Health, please call 715.684.1111.

All dry eye evaluations and LipiFlow® treatments are performed at our clinic in Stillwater.



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VISION FOR A  
**LIFETIME**

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For more information or to schedule an appointment, call: 800.846.1877

[www.associatedeyecare.com](http://www.associatedeyecare.com)   