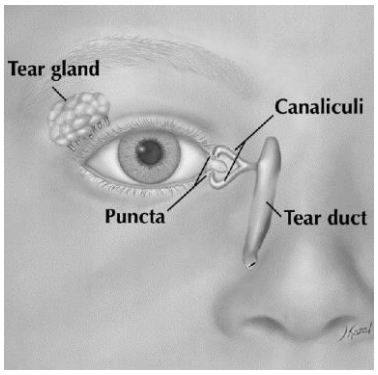
OcuSight eye care center

Tear Duct Problems in Infants and Young Children



What are tear ducts?

Most of our tears are made in the tear gland located beneath the eyebrow (see the diagram). Normally, a thin layer of tears covers the eye and then the tears drain through two very tiny openings (called *puncta*) located in the inside part of eyelids. The tears then travel through the tear duct, and then they enter the upper part of the inside of the nose. This process is normally invisible.

What is a tear duct blockage?

About 1 in 20 infants (5%) are born with a blockage in the tear duct of one or both eyes. The blockage can be partial or complete. The infant's symptoms may include any of the following: a wet appearance to the eyelashes, excess tearing, discharge or drainage from the eyes, crusting along the eyelashes, and awakening with the eyelashes sometimes "stuck" together.

How is a tear duct blockage treated?

We generally recommend nonsurgical treatment if the infant is less than a year old because there is a good chance that the tear duct blockage may get better without surgery. Nonsurgical treatment includes having a parent place a finger on the upper part of the tear duct and gently pressing and massaging in a circular motion for about 10 seconds at a time several times a day. This massaging will create pressure and help move the material along the tear duct. Prescription antibiotic eye drops or eye ointments are sometimes used when there is excessive discharge from the eye or signs of infection. Children who are 6 months of age or younger and have a tear duct blockage have a 70% change that the blockage will get better before they are 12 months of age.

Tear duct surgery is usually recommended for children 12 months of age or older. This is because of the very high success rate of procedures done at this time and also the reduced chance of the blockage getting better without a procedure. As children with blocked tear ducts get older than one year of age, they are less likely to get better on their own and in addition, the tear duct procedures generally become less successful on older children.

Surgical treatment for young children with tear duct blockages is performed as an outpatient (overnight hospitalization is not required). The children receive general anesthesia (the child is completely "asleep"). The anesthesia is administered by an anesthesia provider who monitors the child throughout the procedure. We most often perform the procedure in an outpatient surgery center. The entire procedure will usually take less than 10 minutes.

There are several procedures that may be performed depending upon what type of tear duct blockage we find. The most frequent procedure is to insert a clear, flexible, nearly invisible tube into the tear duct. The only portion of the tube that is visible is a very small clear piece that rests on the eyelid near the puncta (see diagram). During the surgery, if we also find that a normal cartilage structure (turbinate) inside the child's nose is blocking the tear duct, we may gently move the turbinate

to improve tear flow through the tear duct into the nose. This does not affect the nose's appearance or function.

After the procedure, the child usually does not even know that the tube is there. The tube falls out on its own approximately 20% of the time. If it does not fall out, we usually remove the tube several months to a year after it is inserted. We can usually remove the tube in the office. Infrequently, the child will not cooperate for tube removal in the office, and we return to the outpatient surgery center to remove it while the child is under general anesthesia.

Another type of procedure that we sometimes use instead of inserting a tube is to perform a probing procedure. During this procedure, a thin metal instrument is gently passed through the tear duct to open the blockage and allow normal tear flow to begin. Another type of procedure is to use a very small balloon catheter device that is gently placed into the tear duct and then inflated several times to expand the tear duct. The catheter is then removed before the end of the procedure.

There are many surgical options that usually have high success rates, but some children will still have symptoms of tearing and discharge following the procedure. These children may require additional procedures.

Following tear duct procedures, prescription eye drops are used 3-4 times a day for 5-7 days. In general, the procedures are not very painful, but we usually recommend that a single dose of children's ibuprofen (Motrin®) or children's acetaminophen (Tylenol®) be given 6 hours after the procedure. The child is next examined in the office approximately one month after the procedure. If a tube is inserted, the child should not swim in a pool for one week after the procedure. Swimming is permitted after one week. The child will be examined in the office one month after surgery. Children with a tube will continue to be examined in the office every 2-3 months to check on symptoms and to be sure the tube is still in the correct position. About 20% of children with tubes will still have symptoms of tearing and crusting while the tubes are in place – this is because the tube is solid and it takes up space within the tear duct as it "stretches" the duct. These symptoms usually improve when the tube is removed.

Why treat tear duct blockages?

Most parents of children with duct blockages find that the tearing, discharge and frequent infections can be quite troublesome. Many infants object to frequent cleansing and wiping of their eyelids and to the frequent use of eye drops and ointments. The eyelid skin can become irritated. Infrequently, tear duct blockages can lead to serious infections of the skin around the eye or even lead to vision-threatening infections of the eye socket behind the eye – fortunately, this is very rare. Parents should understand what benefits may be gained by the treatment and what the risks are of the treatment. Parents should feel free to ask questions.

Although it is possible for toddlers and even preschoolers who have tear duct blockages to improve on their own (without surgical treatment), this is not common. The success rates from tear duct procedures declines as children get older. The success rate for preschoolers is considerable less than for children who are 12-15 months of age. Other procedures are available for older children with tear duct blockages, but these are often more involved and may require a skin incision (with the possibility of scarring) along the side of the nose.

Conclusion

Tear duct procedures performed at the appropriate age are generally very successful and safe procedures. We hope this handout has answered many of your questions.