Seeing Clearly When Buying Goggles

Standards / History

In the 1300s Persian divers used goggles that had lenses that were made out of polished outer layer of tortoiseshell. In the 1930’s a French man, Guy Gilpatrick, started diving with waterproof goggles.

Swim goggles were originally made for the purpose of keeping salt water out of the eyes while at the water’s surface. Swimming goggles are now made to prevent water from getting into your eyes while under water. By stopping water from contacting your eyes, a pair of goggles can protect your eyes from potential irritation caused by salt water, lake water, chlorinated water, and all bacteria/other organisms that can hurt your eyes and your vision. Opening your eyes under water without goggles could negatively affect your vision by causing temporary discomfort such as blurred vision or irritation. Although it is rare, opening your eyes under water also presents a risk of contracting an amoeba (a single celled organism that could cause serious problems, even death) through your eyes.
It is not recommended to wear contacts while swimming. By doing so, you are at risk of contracting Acanthamoeba keratitis – a serious eye infection. This infection could lead to more lasting effects that could eventually require a serious surgical procedure – a corneal transplant.

If you use contacts, you should consider purchasing a pair of goggles with prescription lenses.

Ultra Violet (UV) protection swim goggles can protect your eyes from several potential problems. These problems include: skin cancer around the eyes, sunburn to the eyelids, cataracts, macular degeneration, pterygium, etc.

Goggles are also now made so that they do not fog up. This allows for you to swim without the worry of having to adjust your goggles due to fog!

**Types of Goggles and Masks**

There are many different types of swimming goggles. The best way to categorize different types of eyewear is by the characteristics they offer:

- **Straps** - Straps are really important to your goggles because they are in charge of keeping the goggles secured to your head. Bungee straps are like little bungee cords that are used. They use a clip that secures them. Another popular type of strap is the Split Strap. The split strap comes out of the goggle as one strap and then splits into two further along the strap. This is a very common type of strap used in goggles. These types of straps are made out of silicone.

- **Strapless** – Goggles that are strapless completely get rid of the strap and nose piece. These types of goggles are specifically two independent goggles lenses. The goggles are stuck to the head with a double-sided, medical-grade adhesive. The reason for goggles like this is to eliminate the drag that could occur from the strap and nose piece.

- **UV Protection** – UV radiation from the sun can damage your eyes and skin, so the best way to prevent damage is to be on the offensive with your protection. UV protection goggles provide UV protection for the sun’s harmful rays, UVA and UVB rays. These rays damage the skin on your eye and contribute to development of cataracts.
• Lens – The color of the lens can be an important deciding factor when purchasing goggles or a mask. Lenses come in all sorts of different colors for different reasons. Mirrored lenses allow for glare protection for bright sunny days of swimming. Lenses that are clear or light yellow are for lower light, such as if you are going to be swimming at dawn or dusk. Red colored lenses create better definition and contrast in a lower light setting. Darker yellow lenses also help you to see with better contrast but are not limited to lower light. Darker lens colors, such as smoke, are for very bright light. This type of lens color would be best for swimming when outdoors and in full sun.

• Ease of use – Nearly all goggles when bought, will come as one-size-fits-all. However, to better prevent water from getting in your eyes, they should be adjusted to better fit your face. Most goggles can easily be adjusted by simply tightening or loosening the strap that surrounds the head and making a minor adjustment to the nose piece. Other goggles are more difficult to use. For example, some goggles require assembly to allow for maximum customization.

• Comfort – Your goggles should be able to fit your head properly and keep water out of your eyes without causing any sort of pain or suffering. Fog – Some goggles offer fog-resistant lenses, however, most goggles do not come with this feature. When fogging becomes an issue, you can purchase a fog-resistant solution from your nearest sporting goods store to use on your goggles.

• Depth – Most swim goggles are meant for swimming only a few feet under water (less than 10 feet in most cases). The further down you swim, the higher the atmospheric pressure becomes on the goggles. This pressure on the outside of the goggles can become very painful the deeper you swim. There is also a risk that the lens could rupture or shatter, which could cause serious injury to your eyes.

Color of Goggles and Masks

Goggles and Masks are offered in a wide range of colors. Straps, lenses, and the frames each come in different colors. It is recommended that you purchase the strap and frame color that you prefer. The color of the goggle and the strap does not make a difference or mean a change in the performance of your goggles.
Goggle and Mask lens colors are important to look at when considering a purchase. It is typical that if you are planning on swimming indoors that you purchase a goggle that has a clear or light lens color. The lighting in an indoor swimming facility will be a normal amount of light that you are used to so the lens does not need to be shaded to protect your eyes from the light. If you are going to be swimming in an environment that has a medium amount of light, a blue lens is good for cutting down a bit of the brightness while still allowing you to see well. If you are planning on swimming outside for long periods of time under full sun, darker lenses will help to block out some of the light so that you won’t have to squint while swimming. This lens coloring is just like having built in sunglasses that are totally waterproof. Also, if you are planning on swimming outside in full sun for long periods of time, it is recommended that you purchase UV Protection goggles or mask. This way your eyes are protected from the sun’s harmful rays.

**Cost of Goggles and Masks**

For recreational swimming goggles and masks can be purchased at your local mega mart, for example Wal-Mart or Target. Goggle and Mask prices at these places ranged from as inexpensive as $3.99 and $9.96 to as expensive as $19.99 and $249.99. The goggles offered at these stores come in single or in packaged sets. For example, one store offered a package of 6 goggles for $20.99. Masks at these stores often come in a set including a snorkel and sometimes even fins. The average cost for a mask and snorkel set from a mega mart is about $24.99.
Goggles and Masks can also be purchased at a local sporting goods store. The prices of these goggles and masks range from $9.99 to $54.99. The goggles and masks in these stores are more professional-like. They offer goggles that are mirrored, have darker lenses to protect eyes, have UV protection, and anti-fog qualities. They, like the mega marts, offer masks that come in a set with a snorkel. The sporting goods stores also offer masks that come both in the oval shape and goggle shape.

Any online shopping should be done with the supervision of a parent. Looking for goggles online offers the ability to purchase a specialty goggle, like Speedo Vanquisher Optical Swim Goggle, without even having to leave your home. Online shopping has a vast range of prices offered, from $2.95 to over $100.

**Goggle Pricing Chart**

<table>
<thead>
<tr>
<th>Place to Shop</th>
<th>Goggle Lowest Price</th>
<th>Goggle Highest Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mega Mart (Wal-Mart or Target)</td>
<td>3.99</td>
<td>19.99</td>
</tr>
<tr>
<td>Online Shopping</td>
<td>2.95</td>
<td>100+</td>
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**Mask Pricing**

<table>
<thead>
<tr>
<th>Place to Shop</th>
<th>Mask</th>
<th>Mask</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Lowest Price</td>
<td>Highest Price</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Mega Mart (Wal-Mart or Target)</td>
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<td>Sporting Goods Store</td>
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<tr>
<td>Online Shopping</td>
<td>7.88</td>
<td>249.99</td>
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**Tips for Buying Goggles**

- Talk to your parents about a target price
- Do you have an allergy that could flare up due to the materials used in the goggles?
- Decide how you will be using your goggles - recreational use or competitive swimming use.
- How they fit to your eyes
- How they fit to your nose
  - Is the nose piece adjustable?
- Decide if, in your budget, you want goggles that offers more, such as:
  - UV Protection
Anti-Fog Protection

Mirroring

- Frame Color
- Lens Coloring
- Type and Color of Strap

Sample Judging Situation

Rachel is shopping for a pair of swim goggles and is considering four options. She is a member of the high school swim team. The team practices and has their swim meets in the local outdoor community pool. Rachel will likely use these goggles when she goes to the beach to protect her eyes while swimming with her friends as well. Rachel does not wear contacts. She is considering the following four options:

1. **Hyperfluid Mask $29.99**
   a. *Product Details:*
      i. Perfect for snorkeling and underwater exploring
      ii. Easy headstrap adjustment

2. **Vanquisher Optical $19.99**
   a. *Product Details:*
      i. Excellent competitive and training goggle
      ii. Low profile optical goggle offered in a variety of strengths.
      iii. UV protection
3. **Air Seal Tri Jr. Mirrored Goggle** $24.99

   a. *Product Details:*

   i. Excellent Competitive and training goggle

   ii. Air-filled gasket system for maximum comfort

   iii. Extended lenses to increase peripheral vision

   iv. Mirrored Lenses to reduce glare

   v. UV protection and Anti-Fog lenses

4. **Disney Pixar’s Toy Story themed goggles for Kids** $4.99

   i. Product Details:

   1. For kids aged 4+

   2. Perfect for recreational use

   ii. For kids aged 4+ Perfect for recreational use