



## **Introducing Health Sciences: Visual Impairment**

### *How Contact Lenses Work*

#### **Woman**

Most people these days will be wearing soft contact lenses, unless they've got a particular difficult prescription where they might be more suitable for a GP lens, we'd be looking at normally daily disposable soft lenses or monthly disposable soft lenses.

#### **Int**

So as a supplier and a fitter of contact lenses what factors do you take into account?

#### **Woman**

Well we're looking first of all what their needs are, what they're going to use those lenses for. The environment that they're going to be worn in is important because lenses dry out and the higher the water content of these lenses the quicker they will dry out, but the higher the water content the more permeability there is, so it is a balancing act in that respect. If enough oxygen isn't getting through to the cornea then the eye will become uncomfortable, the blood supply to the eye will start to change, and if they're drying then those lenses will be physically uncomfortable for the wearer.

#### **Int**

That's a key point, isn't it, because the eye is quite singular as an organ of the body and its demand for oxygen and the way it's supplied?

#### **Woman**

Yes the rest of the body gets oxygen through the blood supply but the cornea is transparent and it divides its oxygen from the tears and the atmosphere, and if there is a reduction in oxygen then the problem is that the blood vessels will want to move in to supply that oxygen, and that can have quite a serious detrimental effect on the performance of the cornea.

#### **Int**

And what about hard and soft lenses, and physical strength, I mean is that a factor to be taken into account?

#### **Woman**

Well the daily lenses because you're only going to wear them once are only going to be thin and they don't need to have durability. The more you're going to wear that lens the thicker it has to be. And a comfort factor comes in, obviously, the thinner the lens the less likely you are to feel it in your eye.