

## Coloplast's weapon in the battle for the urology market

**Laboratory.** Manufacturing penile implants and vaginal mesh involves a product development process with very specific requirements. Coloplast's solution is a very special kind of test laboratory.

Among Coloplast's weapons in the battle for success in the urology care market is a test lab on the ground floor of the company's US headquarters in north Minneapolis, on the banks of the Mississippi. However, this is not an ordinary lab.

It is called the cadaver lab.

Designed in a modern, light Scandinavian style, the head office complex stands out in a district with industrial buildings and a scrap yard just around the corner. It was built when Coloplast's current CEO, Lars Rasmussen, was head of the US business.

In addition to its Scandinavian design and its bright colours, Mr Rasmussen insisted that the 15,000-m2 building should house Coloplast's own state-of-the-art cadaver lab. More about the specific purpose of the lab a little later. In order to understand why this type of lab is necessary for Coloplast, we should take a closer look at Coloplast's urology products. These are products that both men and women clearly hope they will never need to use.

## World leader

Urology is the science of the urinary tract and reproductive organs. The company manufactures a broad range of disposable equipment, from very simple to highly advanced, used by physicians to examine a patient's urinary tract, remove kidney stones or to operate and treat erectile dysfunction or enlarged prostate.

The key driver of Coloplast's urology business right now is the inflatable penile prosthesis, which consists of two oblong cylinders made of Bioflex® connected to a reservoir and a small plastic pump. Titan® Touch is the name of this three-piece penile implant, which is made by hand. It is available in standard sizes from 11cm to 28cm, and each implant takes Coloplast's lab workers ten weeks to produce. Coloplast makes all the parts for the product in-house, including the Bioflex material used. A main reason why the Titan Touch has become a success in the United States is that it has replaced implants made from silicone and flexible stainless steel or inflatable implants that contain less saline, and are thus softer than Coloplast's previous implants. The two Bioflex cylinders are implanted into the penis; the reservoir is placed in the abdomen; and the tiny hydraulic pump is inserted in the scrotum, where it is completely concealed and can be activated discreetly with a few light squeezes.

These implants are for men suffering from erectile dysfunction, for example due to diabetic complications or after treatment for prostate cancer. In many cases, an implant is the only solution if drugs like Viagra do not work.

## **Sex-change operations**

Another relatively taboo subject is the use of implants in connection with sex-change operations. According to the website TransHealth.com, 75% of people having a sex-change operation receive a three-piece penile implant of the same type as the Titan implants. The only two companies manufacturing this type of implant are Coloplast and its competitor American Medical Systems (AMS). However, with a price tag of about DKK 25,000, this is an expensive implant, and it may have to be replaced at some point. Experience shows that they have an average lifetime of 10-15 years. Still, Coloplast has managed to turn it into a successful business, not least because of the company's systematic and thorough approach to innovation, just as it has in its other business areas. This is where we go back to the cadaver lab.

Very few people think about – or want to think about – how a company like Coloplast can produce devices and implants that fit into the most discreet and intimate parts of the human body. In fact, it can only be done if the company is permitted to test its products on cadavers that have been donated to science. The last good deed of some of the people who choose to have this done with their remains is to help improve Coloplast's products by allowing doctors to learn how to implant such products in their bodies.

## Like a forensic lab

Coloplast's lab looks like a bright, friendly version of a forensic lab, with plank beds, instrument trolleys, large operating lamps and a sink. In the back room is a freezer used to store the part of the body – urogenital diaphragms and upper legs – that Coloplast needs to test its products. These body parts are sourced through an external service provider that also runs the lab, so Coloplast employees never directly handle the cadavers.

"Running a cadaver lab is highly demanding ethically, because – obviously – we have to treat the deceased with respect. For example, no one is allowed to see more than is absolutely necessary, and the deceased persons who have donated their bodies are always completely anonymous," explained Steffen Hovard, Senior Vice President of Coloplast's Urology Care business.

In addition, there are no spectators crowded around the operating table when the doctors receive training. Next to the lab is a conference room separated from the lab by a large glass window. The glass is fitted with roller blinds that can be lowered when the cadaver is wheeled in and prepared, and the room is fitted with TV screens so that everything going on in the lab can be transmitted.

"Having our own lab is a huge benefit for us in our work to develop and refine our products, much better than having to lease facilities from other companies or universities in different parts of the country. Instead, we often have a situation where other companies request permission to rent our facilities," said Mr Hovard.