

Medical Innovations

Diane Kepley:

Inventors in the U.K. are shining a new light on innovative medicine, literally. From blue light plaque detectors to optical scanners that can detect cancerous tissue, the advances on display here could one day change the way disease is diagnosed. For breast cancer patients, this device could be a lifesaver. By enabling surgeons to scan the lymph nodes for signs of cancer, it allows for more accurate detection of spreading cancer cells.

Mohammed Keshtgar:

We have designed and developed this optical scanner that actually scans the whole surface of the lymph gland, and the signal we get from cancer is different from the signal we get from non-cancer. If I get that information in the operating room, then I can design my surgery, and those patients who have got a problem in their lymph glands, I can make a more extensive operation and save those patients who do not require it.

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Another innovation could help reduce the invasive surgery required for bone grafts.

Kevin Shahesheff:

Here we have something that looks like bone, and we can inject it in. The material will harden spontaneously at body temperature. Um, and over a period of about fifteen minutes, it will convert from this toothpaste, foam-like material into a very hard material, which is as hard as human bone. Now at that stage, new bone tissue and new stem cells will migrate into that site, and the polymer is biodegradable. So, over a six-month period, the polymer will be removed from the body, and the site will be completely regenerated with healthy, functional bone tissue.

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Not all the devices on display are intended for the operating room. This device uses blue light to reveal hidden plaque on teeth. Specially coated glasses are required to have the plaque show up in red, but its inventors hope to eliminate the need for glasses by incorporating filters into bathroom mirrors.

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Diane Kepley, The Associated Press.

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