DIAGNOSTIC MONITORING TECHNOLOGY
A diagnostic breakthrough for monitoring blood perfusion in diabetics

THE CHALLENGE

Poor control of diabetes often leads to peripheral vascular complications, which are closely linked to foot ulceration and other chronic non-healing wounds.

This is traumatic for patients – with up to a fifth of sufferers eventually needing an amputation – and expensive for healthcare providers.

But each patient has a unique vascular profile. So, without quantitative feedback on blood perfusion, doctors have to rely on educated guesswork – based on inadequate guidance from visual X-ray angiography – when carrying out treatment such as angioplasty.

THE SOLUTION

The real-time deep tissue perfusion monitor uses a diffuse optical system to analyse the scatter pattern of coherent laser photons. This gives a picture of the movement of blood in all the blood vessels.

It’s simple to use – an adhesive sensor is attached to the patient’s foot and real-time perfusion data provides feedback during operative procedures.

As well as being used to guide treatment such as angioplasty, the technology can also be used both pre and postoperatively – for example, to monitor patients in their own homes.

BENEFIT TO CLIENT

The new technology helps reduce the risk of non-healing wounds, infection and limb amputation for diabetic patients. It also enables healthcare providers to cope with the increasing numbers suffering problems such as diabetic foot ulcers.