



Professional News

Most Popular Stories

Anesthesiology

Atrial Fibrillation

Bipolar Disorder

Bone Health

Breast Cancer

Cardiology

Dermatology

Diabetes

Epilepsy

Gastroenterology

General Practice

Heart Failure

Hypertension

Infectious Diseases

Lipidology

Neurology

Ob/Gyn

Oncology

Parkinson's disease

Pediatrics

Prostate Cancer

Psoriasis

Psychiatry

Respiratory

Schizophrenia

General Medicine

[← Back](#) [Print Article](#)

Sound of kidney stones trumpets op-success

01 November 2004

Researchers have created a stethoscope capable of detecting whether treatment to shatter kidney stones has been successful.

Using the device to listen to the echoes that reverberate around the body after shock waves from lithotripsy, doctors will be able to tell whether the kidney stones have been destroyed, without the need for further X-rays.

Trials of the equipment at Guys and St Thomas' Hospital in London have shown promising results.

Professor Tim Leighton, from the University of Southampton, led the study. He explained: "Consider a railwayman walking along the length of a train, hitting the metal wheels with a hammer.

"If the wheel rings nicely, he knows that it's not cracked. If the wheel is cracked, it gives a duller sound."

He added: "We are looking for a stone from being intact at the start of treatment – when it will give a nice ring 'tick' sound – to being fragmented at the end of the treatment, when it will give a duller 'tock' sound."

Currently, doctors need to compare x-rays carried out before and after lithotripsy to see if the appearance of the stone has changed, but it is often difficult to tell. This means that the doctors may only discover that the procedure was a failure when the patient suffers from symptoms again.

So far, the 'smart stethoscope' has been used to monitor treatment in 50 patients with kidney stones.

It consists of a small probe that is taped to the flank of the patient, where it picks up sound. The sound waves are then transmitted to a device that amplifies and changes the frequency of sounds so that they are audible to the doctor.

Professor Leighton said the stethoscope had been "superbly successful" in clinical tests.

"I have been astounded by how effective it is as a monitor. Plus it is completely non-invasive. It does not expose you to any radiation."

X-rays would still be required to detect the kidney stones in the first place.

He suggested that the stethoscope could be connected to a computer that

Friendly Links

Up to 1,000 webcasts coming soon

Supported by Pfizer Oncology

FOLLOW ME ON TWITTER

AdChoices ▶

[Nursing Postgraduate](#)
Accredited Postgraduate Courses in Nursing & Midwifery. Apply Now!
ecu.ac.uk/nursing

[Dr Manny thinks its hot](#)
Find out for yourself. Amazing new 100% Ultrasound Toothbrush
www.emmi-dent.co.uk

[Elderly care in the home](#)
Live life your way with supported elderly care
TheGoodCareGroup.com

Stroke

Thrombosis

Patient News

Patient Dermatology

Archive News

Archived Services

MedWire Interviews

Recent Interviews

Friendly Links

could interpret the data and display the results as a traffic light system, where red would mean no success, amber some success and green complete success.

 **Comment**

Useful Links

[University of Southampton](#)

[Guys and St Thomas' NHS Foundation Trust](#)

Comments

This article currently has no comments

Post a Comment

Please note, email address is required but not shown. Comments are moderated and will not appear until they have been approved. Please see the [disclaimer](#) for more information

Name:

Email:

Position:

Institution or
Organization:

Homepage:

Comment:
(HTML not allowed)

[Lose 4 Stone in 3 Months?](#)

Discover the Shocking Truth About Britain's Hottest Diet...

TrimRecipe.com/Diet

medwire
congress reports

News and reviews from international congresses



medwire-congress.md

 Springer Healthcare

announces the launch of

ASCO
Reprints
Portal

Your gateway to premium content by the American Society of Clinical Oncology®

journal-reprints.com

