

News story: Pioneering treatment could save limbs on the battlefield

Biomedical engineers are pioneering a new technique for treating injured limbs which could reduce amputations after battlefield injuries.

The technique has been developed by researchers at the University of Strathclyde, Glasgow and funded by the Defence Science and Technology Laboratory (Dstl) through the Defence and Security Accelerator.

Created in response to the experiences of Iraq and Afghanistan, where improvised explosive devices caused traumatic injury, the three-stage approach is a brand-new technique that brings together kit that can be used in the field, with highly specialised solutions once the patient is evacuated to a hospital.

A novel tourniquet is applied to the limb, which applies pressure at different points, reducing pressure and damage to specific areas. A cooling 'sock' is then wrapped around the tissue, to preserve it from further damage until the casualty can be evacuated to a care facility. Once at a hospital, the limb is placed inside a protective 'box', which can sustain the area while doctors attempt repairs. The box has specially decontaminated air to reduce infection, and continually supplies the affected area with blood.

Weighing only five kilogrammes, the technology is specially designed for deployment on operations, and used by combat medics. The system could also be used in a non-military setting, for example natural disasters or remote locations.

Following successful trials, the system is set to be available commercially, and could one day form part of the medical kit in every frontline unit.

Dr Neal Smith, Capability Adviser, Medical Sciences, from Dstl, said:

While this technique may not be right for every injury, it is a hugely important innovation that could save the limbs of many more of those affected. It's a fantastic example of where we work with academics to fund life-changing research which has been turned into a product to improve the quality of life of those injured in service.

Professor Terry Gourlay, Head of the Department of Biomedical Engineering at Strathclyde University, said:

We looked at every stage of the journey an injured soldier follows after injury to ensure our solution was designed specifically for them.

The system we have developed is essentially a life-support system for the limb which gives doctors precious time to attempt to repair damage while ensuring the safety of the patient.

Professor Gourlay's team also pioneered the blood salvaging technique known as HemoSep, which allows blood lost in surgery to be transfused directly back to the patient, reducing the need to donated blood. A military version of the HemoSep project was also funded by Dstl.

Find out more about our [Protecting Our People Programme](#).

[West End Community Council Update](#) [#dundeewestend](#)

I have today launched my West End Community Council Update for March – you can [download](#) this [here](#).



The Update covers the following issues :

- West End residents' parking
- Dog fouling issues
- West End recycling changes

The Community Council meets at 7pm tonight at the Logie & St John's (Cross) Church Hall in Shaftesbury Terrace – all welcome!

[Roads – are they the worst nationalised industry?](#)

Road provision in the UK has all the hallmarks of a nationalised industry. It is a monopoly, provided free at the point of use. There are various specialist taxes just paid by motorists which mean users of the roads pay

several times over the cost of provision. The state sees motorists as a great source of income, keeps us short of capacity, provides a very poor service, and goes out of its way to be use regulation not just to aid safety which is an excellent thing, but to produce a further source of income for the state from fines and parking fees from needless or complex rules. Some traffic management schemes seem designed to impede vehicles as much as possible.

The state takes particular delight in traffic mismanagement schemes which seem designed to try to collect more fine revenue. There are the frequent and sometimes inexplicable changes of speed limits within the same urban corridor. There are the bus lanes that allow you in them at certain times of day, only to switch to excluding cars at all times of day along the same stretch of road. There are the box junctions that you can caught in by error if the vehicle ahead of you stops in a way you were not predicting.

There are state owned car parks with unclear rules – do they allow free parking on a Sunday? What is the position on a bank holiday?

There are then the many bad junctions which impede traffic and are often unsafe. Sometimes the purpose of the different lanes is not clear unless you know the road well, leaving some vehicles stranded in the wrong lane when they come to cross or turn at the junction. The system is chronically short of capacity into most of our towns and cities. Quite often the issue is a lack of bridging points to get over rivers and railway lines.

The authorities compound the inadequacy of the capacity they provide by allowing or encouraging the main utility companies to put all their pipes and wires under main roads. This means whenever they need to repair, maintain or replace they need to dig up the road and close it in whole or part. No-one would think of putting utilities down the side of railway lines and diverting trains everytime you need to access the wires and pipes.

Government authorities themselves are constantly fiddling with the road layouts, kerbs and lanes so they too directly create long delays from roadworks.

We have discussed before the agreed wish to keep the provision free at the point of use. This leaves us with how then we persuade local and national government to provide more road capacity and to manage the capacity they have more effectively. An authority like Wokingham is putting in substantial new road space to catch up with past demand and to deal with the current rate of new housebuilding, but it also needs extra capacity on the national trunk and motorway network. More of the money taken from motorists and commercial vehicle owners should be spent on providing better roads.

Only the motorways segregate motor vehicles from cycles and pedestrians. They are as a result our safest and our fastest roads. All train tracks are segregated from pedestrians and cyclists despite having great straight shortest distance routes into our urban centres to assist rail safety. Where we have to run a mixed road, used by pedestrians and cyclists as well as motor vehicles we need to make decent provision for all and recognise the need to keep pedestrians and cyclists away from moving traffic where possible

as mixed used junctions are particularly dangerous.

[One cheer for the OBR](#)



John Redwood won a free place at Kent College, Canterbury, He graduated from Magdalen College Oxford, has a DPhil and is a fellow of All Souls College. A businessman by background, he has been a director of NM Rothschild merchant bank and chairman of a quoted industrial PLC.

- [Read more about John Redwood](#)
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[President of India leads delegation-level talks, witnesses exchange of Agreements/Mous; meets top leadership of Mauritius on second day of visit](#)

The President of India, Shri Ram Nath Kovind, today (March 12, 2018) led delegation-level talks with Prime Minister Pravind Jugnauth of Mauritius and members of his Cabinet. The President also witnessed the exchange of several agreements/MoUs between India and Mauritius.

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