



The device uses a technique called electrospinning, in which electricity is used to create nano-fibres from a solution | Photo source [Nanomedic Technologies Ltd.](#)

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## MEDICAL 'GUN' SPINS PROTECTIVE NANOFIBRES FOR WOUND COVER

 HEALTH & WELLBEING

### A hand-held device can create a nanofiber skin substitute that eliminates the need for painful bandage changes for burns and wounds

**Spotted:** Israeli company Nanomedic has developed the Spincare System, which can cover wounds and burns with a protective layer. The breathable “skin substitute” can be applied without touching the patient, and does away with the need for painful bandage changes, yet allows doctors to visually examine the wound.

The device uses a technique called electrospinning, in which electricity is used to create nano-fibres from a solution. Although the technique has been in use for a number of years, Nanomedic’s device is small enough to be used at a patient’s bedside. The device has already been successfully used on facial wounds, where large bandages can be cumbersome, to cover superficial burns, and with diabetics, who suffer from frequent foot sores.

Nanomedic claims that Spincare offers a number of advantages over traditional bandages, including no-contact application, allowing the patient to shower, offering coverage of hard-to-bandage areas, breathability, and the need to do away with painful dressing changes. Because the protective mesh “mimics the skin,” patients are also able to move around more easily than with bulkier dressings.

Spincare is part of an ongoing debate in the medical community over whether it is necessary to change bandages regularly in order for wounds to heal properly. Spincare joins other specialist bandages designed to be changed less frequently. [According to the company:](#) “The Spincare Wound Care System is the only system that integrates electrospinning technology into a portable,

bedside device, ... creating a fully personalized single application ... based on patient's wound condition, size and contour."

Here at Springwise, we see innovations in the medical space every week. And a number of these are geared to helping people in more poorly-served areas. Some recent ideas covered here include a solar-powered device to [sterilise](#) medical equipment and a rapid-deployment [ICU pod](#) built inside a shipping container for easy transport.

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### **Takeaway:**

Although Spincare is not a completely novel concept, in that it is a stick-on dressing intended to stay on for long periods, it does use a unique method of application. The dressing is applied using a "gun" that (gently) shoots out the dressing. This not only allows the dressing to be applied without painful contact, but it is very transportable. That makes it very useful for use in the field, in remote clinics and in other areas outside a comprehensive medical setting. Not having to change a dressing is also beneficial for patients without easy access to a medical clinic.