

# Australia hopes for living skin for burns victims

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Australian scientists are working towards creating a living, full-thickness replacement skin for burns victims and hope to begin animal trials later this year.

Research is underway to reproduce in the laboratory fully-functioning skin for transplant which could transform the lives of those left with serious burn injuries, a spokeswoman for the Sydney Burns Foundation said Sunday.

Burns victims are currently treated with [skin grafts](#) -- pieces of their own skin taken from unharmed parts of their body -- or with small sheets of skin grown in a laboratory using their [skin cells](#).

But laboratories can only grow epidermis -- the thin outer layer of skin -- and this cannot stretch, perspire, grow hair, or have normal feeling or movement.

Researchers at the Sydney Burns Foundation, a collaboration between the University of Sydney and Concord Hospital, hope to counter this problem by developing a full-thickness, living skin to be transplanted to burns victims.

Sydney University Professor Peter Maitz said extensive testing was underway to establish base data for testing on animals in the near future.

"Burns injury is one of the most severe and disabling traumas a person

can sustain," Maitz said in a statement.

"While modern burn and intensive care treatment has saved many lives, there is still a widening gap between achieving survival and real quality of life after a severe burn injury."

Speaking to the ABC last month, Maitz said when burns go through all the layers of skin, doctors are often only able to replace them with a "thin, thin layer.

"Whilst it will close the wound, it has no [elasticity](#). It cannot sweat, it cannot regulate temperature, it does not metabolise -- produce anything. These are all functions of the normal [skin](#)."

He said while burns victims could often be kept alive by hospitals, it was up to the [plastic surgeon](#) to make their lives worth living.

"Because if that person then leaves the hospital and is a complete scar that can't move around, can't use their hands, can't eat properly, can't do their personal hygiene, the question needs to be asked, are we failing our patients?"

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