

# A Method of Nitric Oxide Delivery for Healing and Organ Preservation

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## Technology description

### Invention:

The invention is a medical device, more specifically a bandage, which releases Nitric Oxide to help heal wounds, improve blood circulation and preserve organs being stored for transplant.

Nitric Oxide opens blood vessels and keep them relaxed, two of the key factors that help blood flow. Secondly this device inhibits thrombosis thereby preserving transplant organs. Though some recent efforts toward Nitric Oxide delivery have been concentrated on the fabrication of materials that release Nitric Oxide, this invention permits practitioners to control the discharge of this gas itself. This innate feature ensures that no harmful byproduct is formed as a result of the chemical interactions and gives more flexibility with the administration of the Nitric Oxide.

### Background:

Time is the key factor in the organ transplantation process. A decrease of Nitric Oxide is an underlying reason for previously stored transplant organs to fail. The use of nitric oxide after cold storage of the donated organ may help maintain normal functioning after the transplant. More recently Nitric Oxide has also offered to help diabetic patients who suffer from lower blood flow in their extremities, especially in their feet. Though Nitric Oxide has defined benefits, the storage and controlled delivery of the Nitric Oxide gas itself has not been perfected.

## Advantages

- Creates no harmful byproduct
- Increases time an organ can be in storage before transplanted

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