Researchers at the University of South Florida have developed a surgical device for removing dead or damaged tissue.

Each year between 50,000–70,000 Americans are burned so severely they require hospitalization. Third degree burns are the most serious burn injury and treatment includes removing the damaged tissue in order to promote wound healing. The process of tissue removal is typically accomplished by manually cutting away the damaged tissue with specially designed surgical tools. Performing this procedure, however, can be tedious and time consuming using currently available instruments. Oftentimes these devices cannot precisely control the depth at which the damaged tissue is removed and healthy tissue is inevitably discarded as well. Consequently, the amount of time the patient is kept under general anesthetic is longer than necessary.

Our inventors have created a surgical device to remove injured tissue that will significantly reduce the amount of time required for the procedure. The device includes an adjustment mechanism that allows for a specified depth of tissue removal from a thickness of 0.0005 to 0.005 inches. This precision leads to less bleeding during and after the procedure, leaving only healthy tissue behind. With an added suction system for removing the dead tissue debris the device can prevent the cutting blades and the inside housing from becoming clogged.

The novel aspects of this device provide for an improved method of tissue removal that enables faster wound healing and potentially less scarring. Unlike many devices on the market today, this invention offers better excision control while quickly and efficiently clearing unwanted tissue from the burn damaged area. The ease of use will minimize the procedure time with optimal results in patient recovery.

ADVANTAGES:
- Adjustable Depth of Cut
- Shorter Healing Time
- Less Blood Loss
- Decreased Clogging During Procedure

Tech ID # 98B031  Patent #: 6,391,034