Full thickness burns require early excision and grafting or temporary cover. The conservative approach of delayed excision increases the risk of infection, hypertrophic scar and length of stay. The physiological inflammatory reaction following thermal injury of more than 20% percent of Total Body Surface Area (TBSA) may result in organ failure. Early excision is also purported to reduce catabolism, prevent immunosuppression and improve survival.

WHEN TO EXCISE?
The timing remains controversial. Early excision should happen after resuscitation. For burns of less than 20% TBSA excision can be achieved in the first 24 hours but large burns must be hemodynamically stable before surgical intervention. Most burn surgeons prefer excision in the first 72 hours.

There may be no difference in outcome when wound excision occurs within three days or between three and seven days.

We recommend excisional therapy as soon as patient is physiologically stable and the surgeon is able to differentiate areas of deep and partial thickness burn. It may be extremely difficult to differentiate deep partial from full thickness wounds; laser Doppler technology may be useful. Our practice, in indeterminate cases, is to use an enzyme based debriding ointment before we ultimately decide on the extent of excision.
Some factors can delay early excision. Respiratory support takes priority where there is a serious inhalation injury. Some pre-existing medical conditions and extreme age need optimal physiologic stability before large excision. Pregnant women pose a major challenge as well when come to extensive excision.

**TECHNIQUES OF EXCISION**

Janzekovic described tangential excision by sequential removal of the eschar, layer by layer, with a Humby knife, Goulian knife or dermatome until viable dermis or subcutaneous tissue is reached. This technique preserves viable tissue and an autograft can be immediately applied or allograft to provide temporary cover. Blood loss is a major concern but most of the time a satisfactory cosmetic result is achieved.

Fascial excision consists of removing all layers of eschar and underlying tissue to the level of fascia. This technique minimises blood loss but the cosmetic result after grafting is less favourable than tangential excision. Fascial excision is done by use of Humby knife or electro cautery.

**EXTEND OF EXCISION**

Patient hemodynamic stability is the limiting factor for the size of excision. The quality and experience of anaesthetist play a determinant role. Blood losses and availability of skin graft or its substitutes determine the extent of surgery. Blood loss can be reduced by use of tourniquets, pressure or topical or subcutaneous epinephrine. We also insist on surgical team speed to reduce the timing of intervention to minimise blood loss and hypothermia especially in paediatric population.

**EXCISION AND WOUND CLOSURE**

Excision without any form of closure will prolong life but not reduce mortality. Without wound cover the wound will be colonised and infection will negate the benefit of early excision intervention.

The ideal wound closure is performed by use of autograft. In large thermal injuries (> 40%) donor site area become a limiting factor.
Others options then need to be utilised. Mesh expansion to 4:1 the Meek micrograft technique (6:1) can be considered. Allograft is the first choice as temporary cover. Many other biological and skin substitutes are alternative options for wound cover.

**CONCLUSION**

Early burn excision is the standard of care for full thickness wound. The conservative approach of waiting spontaneous separation for eschar is associated with prolonged length of stay and high mortality. Early excision mandates early wound closure to prevent colonisation and infection.