

# How Is The Rule of Nines Used?

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# Medical Provider & Surface Burns

- A medical provider can use calculations from the rule of nines in several ways.
- This includes the amount of fluid replacement and degree of care a person needs.
- When a person experiences a second-degree burn or worse, the protective layer of skin is destroyed.
- As a result, they'll lose a significant amount of body water.
- This makes providing fluids vital to helping a person maintain their total body water.
- According to the [National Institutes of Health](#), burns that are greater than 20 to 25 percent of total body surface area require significant intravenous (IV) fluids.
- Doctors will also use the estimated body surface area burned to determine how much fluid to administer.



# Rules of Nines: National Institutes of Health

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- The rule of nines can also relay to a medical team receiving the patient how serious the injury is.
- Providers also know that burns that exceed 30 percent of a person's body can be potentially fatal, according to the [National Institutes of Health](#).





# Treating Burn Wounds

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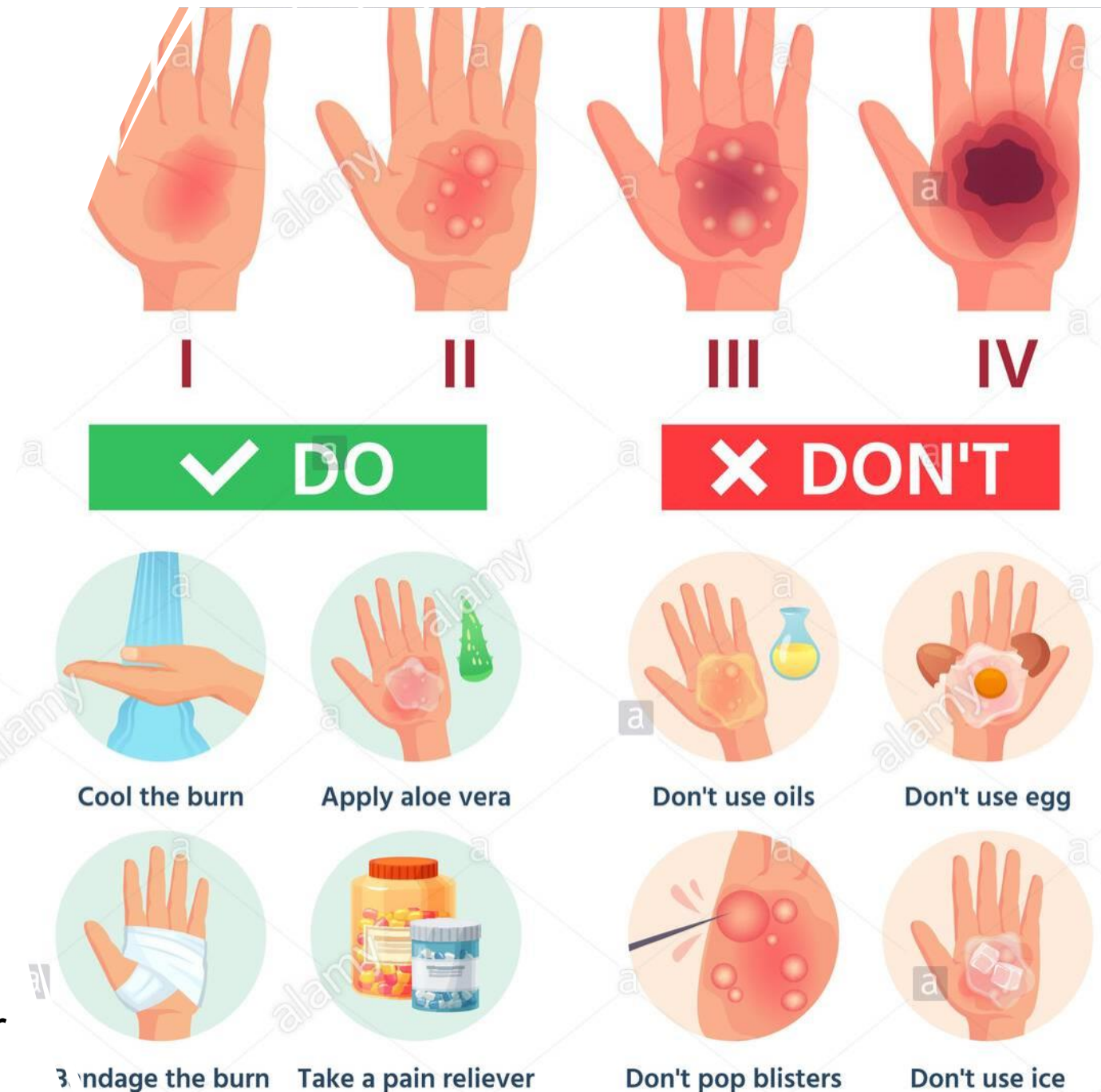
- Circumstances where a burn center should treat the wounds include:
  - when the person is a child
  - when the burned areas involve key areas of the body, such as the hands, feet, genitalia, face, or major joints
  - chemical burns
  - electrical burns
  - the presence of third-degree burns



# Burn Wounds Circumstances

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- If a person has burns on 10 percent of their body surface area or greater, a specialized burn center should treat their wounds.
- Another example of how a provider may use the rule of nines is to determine how much IV access is needed.
- If a person has 15 percent or more of their total body surface area burned, they'll need at least one peripheral line to provide IV fluids.
- If a person's body is burned 40 percent or more, they'll need at least two IVs.







## Rules of Nines In Children

- Doctors don't typically use the same calculations in the rule of nines to children. This is because children tend to have different body proportions than adults do, including larger heads and smaller legs.
- For example, children tend to proportionally have a 20 percent larger head than adults, according to the [National Institutes of Health](#). Infants also have 13 percent smaller legs than adults.

# Rules of Nine In Children

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Body part	Percent
Arm (including the hand)	9 percent each
Anterior trunk (front of the body)	18 percent
Head and neck	18 percent
Legs (including the feet)	14 percent each
Posterior trunk (back of the body)	18 percent

# The Takeaway

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- Burns are a serious, painful injury that require immediate treatment and intervention.
- The rule of nines serves as a quick method of assessment for a medical provider to estimate the extent of a person's injuries.
- If the person with burns is a child, the rule of nines should be adjusted due to differences in a child's proportions.







**QUESTIONS**

**ANSWERS**

Questions and Comments