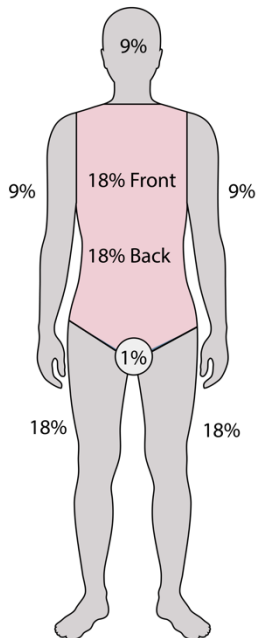


## TBSA: Total Body Surface Area Estimation of Burn Injury

Estimating the percentage of total body surface area (TBSA) burned is critical in assessing burn injuries. *Note that first degree burned areas (superficial burn without blister formation) are not included in the TBSA burn calculation.* Although burn centers typically use a different method (Lund-Browder Charts), a more accurate determination of percent TBSA burn, the **Rule of Nines** and the **Palmar Method** are used in a BMCI for ease of use and speed are more important than granular estimation.

### Rule of Nines

The Rule of Nines assigns a percentage of body surface area to different body regions using the following percentages. Note: Calculate only the portion of each area with second- or third-degree burns, not the entire area.



- Example #1: If the right arm is burned front and back from the shoulder to the elbow, the TBSA would be 4.5%.
- Example #2: If half of the torso was burned only on the back, the TBSA would be 4.5%.

BODY PART	PERCENT BSA
Entire Head and Neck	9% (4.5% front, 4.5% back)
Entire right arm	9% (4.5% front, 4.5% back)
Entire left arm	9% (4.5% front, 4.5% back)
Entire Torso	36% (18% front, 18% back)
Groin	1%
Entire Right Leg	18% (9% front, 9% back)
Entire Left Leg	18% (9% front, 9% back)

### The Palmar Method



**Palmar Method**  
Patient's palm and fingers  
= 1% TBSA

The palm method uses the palm of the patients (adult or child) as a visual estimate of the size burns. The entire palm and fingers equal approximately 1% TBSA. The palm alone is approximately 0.5% TBSA.

This easy-to-use method is especially useful with small or scattered burns, but it may overestimate surface area in large burns.