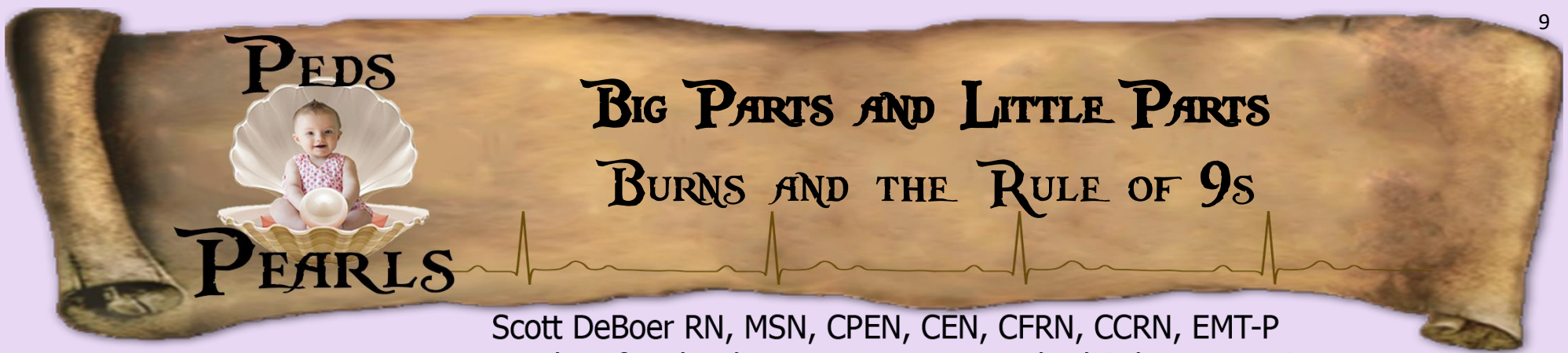



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## Burnt Kids

If EMS or ER professionals have work related fears, a common and often cited element of concern is pediatric patients, or simply put, kids. And what's even worse than kids? Kids that are burned. While our initial reaction may be just to call the burn center and say that the kid is burned, or badly burned, or badly, badly burned, what they need and should expect from us during the initial phone call is a realistic approximation of the amount or percentage of body surface that is burned. So, here's our suggested way to calculate and actually remember how badly a kid is burned.

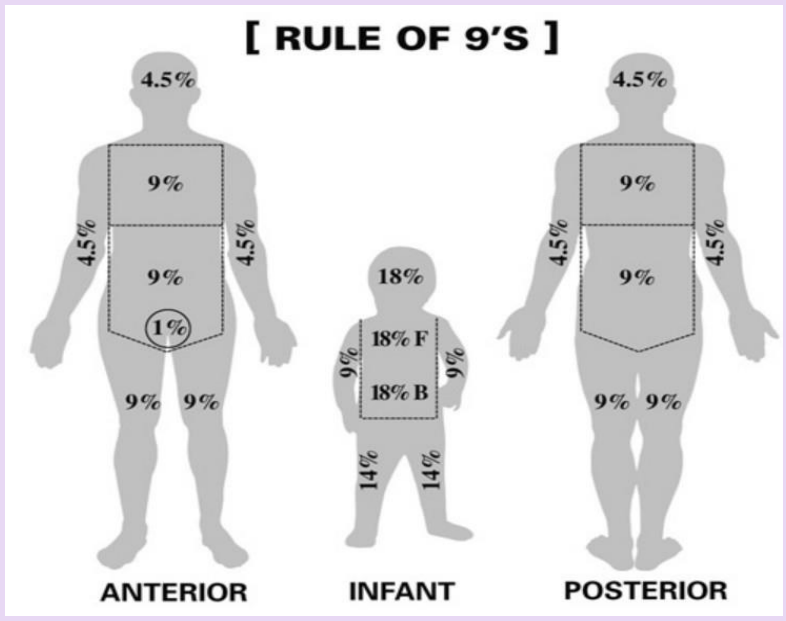
Before we can actually explore the calculation rule, there are a couple of key reminders:

1) The Rule of 9s is only a guide. It's not perfect by any means. But in the prehospital or ER arenas, it will get you in the right ballpark until the patient can arrive at a burn center.

2) Little kids, under the age of two, have "big head, little body syndrome." As a result, they get a much bigger percentage assigned for their bigger heads.

## Big Parts and Little Parts

The Rule of 9s teaches that there are two kinds of body parts: Little parts and big parts. The little parts are worth 9%, hence, the Rule of 9s. Imagine that. Big parts are bigger so they get twice that amount, or 18%. In adults, “little parts” include one entire arm or the entire head and get 9%. “Big parts” are made up of two little parts, such as the anterior torso which includes the chest and abdomen, or an entire lower extremity which includes both the anterior and posterior aspects. These bigger parts get 18%. So, if the front of the chest and belly are a big part and worth 18%, how much does the entire back of the torso get? 18%. That wasn't hard, now was it?




However, remember that little children (<2-years of age) have “big head, little body syndrome" and therefore, they get 18% for their big 'ol heads. Burn centers who like caring for burns teach that little children also have “short little leg syndrome” and they technically only get 14% for their legs. However, for us in EMS or the ED where we don’t take care of critically ill burn patients every day, simply remembering “big parts (18%) and little parts (9%)” is much easier and sufficient in most cases. When the patient gets to the burn center, they can more accurately assess the burn percentage using the Lund-Brower chart or other methods. They are the experts as they do this every day!

And don’t worry about your math skills… If you add up all the numbers and get a negative number or a number greater than 100%, the burn unit will pay attention and usually understand. Trust me on this one!

## The Math…

**Example 1**: A one-year-old has burns to his entire head and both arms. What % is burned? (Hint: Big Head at this age.)

- Big parts (18%) vs. little parts (9%)
- Big head (little kid with big head = 18%) and two little parts (arms) at 9% each
- 18 + 9 + 9 = Approximately 36% burn

**Example 2**: A 12-year-old has burns to his entire head, both arms, and the front of his chest. What % is burned?

- Big parts (18%) vs. little parts (9%)
- Big part (front of chest = 18%) and three little parts (head, both arms) at 9% each
- 18 + 9 + 9 + 9 = Approximately 45% burn

**Pediatric Burn Surface Percentages…**Remember:

1) Big parts vs. little parts

2) Little kids have big head, little body syndrome

3) You can always phone home (to the burn center) for help, but sometimes you just have to do the math!

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Contact us to have Scott DeBoer or one of our other pediatric experts present at your next conference.

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