

# Shock Index, Pediatric Age-Adjusted (SIPA)

## Tip Sheet for Nurses and Providers

### Summary

[SIPA \(Shock Index, Pediatric Age Adjusted\)](#) is defined as the ratio of heart rate to systolic blood pressure, adjusted for age.

Elevated *Shock Index* has been proven to monitor and predict severity of illness and prognosis. In addition, elevated SIPA correlates with increased mortality and the risk of needing blood products. SIPA additionally improves the discriminatory ability of identifying severely injured children at-risk of requiring operative intervention, and ICU admission.

### Index Ratio Values

$$SIPA = \frac{HR}{SBP}$$

SIPA Scores	Ages 1-5	Ages 6-12	Age ≥ 13
Normal Values	0-1.2	0-1.0	0-0.9
<b>Abnormal</b>	<b>&gt;1.2</b>	<b>&gt;1.0</b>	<b>&gt;0.9</b>



**If SIPA is abnormal, STOP and notify the Attending Physician.**

**Discuss the need for ongoing resuscitation for shock.**

### Patient Data Example

#### Relationship of SIPA Scoring and Vitals Signs for a 13 year-old patient

