

Organ injury scaling 2018 update: Spleen, liver, and kidney

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TABLE 1. Spleen Organ Injury Scale—2018 Revision

AAST Grade	AIS Severity	Imaging Criteria (CT findings)	Operative Criteria	Pathologic Criteria
I	2	<ul style="list-style-type: none"> – Subcapsular hematoma <10% surface area – Parenchymal laceration <1 cm depth – Capsular tear 	<ul style="list-style-type: none"> – Subcapsular hematoma <10% surface area – Parenchymal laceration <1 cm depth – Capsular tear 	<ul style="list-style-type: none"> – Subcapsular hematoma <10% surface area – Parenchymal laceration <1 cm depth – Capsular tear
II	2	<ul style="list-style-type: none"> – Subcapsular hematoma 10–50% surface area; intraparenchymal hematoma <5 cm – Parenchymal laceration 1–3 cm 	<ul style="list-style-type: none"> – Subcapsular hematoma 10–50% surface area; intraparenchymal hematoma <5 cm – Parenchymal laceration 1–3 cm 	<ul style="list-style-type: none"> – Subcapsular hematoma 10–50% surface area; intraparenchymal hematoma <5 cm – Parenchymal laceration 1–3 cm
III	3	<ul style="list-style-type: none"> – Subcapsular hematoma >50% surface area; ruptured subcapsular or intraparenchymal hematoma ≥5 cm – Parenchymal laceration >3 cm depth 	<ul style="list-style-type: none"> – Subcapsular hematoma >50% surface area or expanding; ruptured subcapsular or intraparenchymal hematoma ≥5 cm – Parenchymal laceration >3 cm depth 	<ul style="list-style-type: none"> – Subcapsular hematoma >50% surface area; ruptured subcapsular or intraparenchymal hematoma ≥5 cm – Parenchymal laceration >3 cm depth
IV	4	<ul style="list-style-type: none"> – Any injury in the presence of a splenic vascular injury or active bleeding confined within splenic capsule – Parenchymal laceration involving segmental or hilar vessels producing >25% devascularization 	<ul style="list-style-type: none"> – Parenchymal laceration involving segmental or hilar vessels producing >25% devascularization 	<ul style="list-style-type: none"> – Parenchymal laceration involving segmental or hilar vessels producing >25% devascularization
V	5	<ul style="list-style-type: none"> – Any injury in the presence of splenic vascular injury with active bleeding extending beyond the spleen into the peritoneum – Shattered spleen 	<ul style="list-style-type: none"> – Hilar vascular injury which devascularizes the spleen – Shattered spleen 	<ul style="list-style-type: none"> – Hilar vascular injury which devascularizes the spleen – Shattered spleen

Vascular injury is defined as a pseudoaneurysm or arteriovenous fistula and appears as a focal collection of vascular contrast that decreases in attenuation with delayed imaging. Active bleeding from a vascular injury presents as vascular contrast, focal or diffuse, that increases in size or attenuation in delayed phase. Vascular thrombosis can lead to organ infarction.

Grade based on highest grade assessment made on imaging, at operation or on pathologic specimen.

More than one grade of splenic injury may be present and should be classified by the higher grade of injury.

Advance one grade for multiple injuries up to a grade III.

