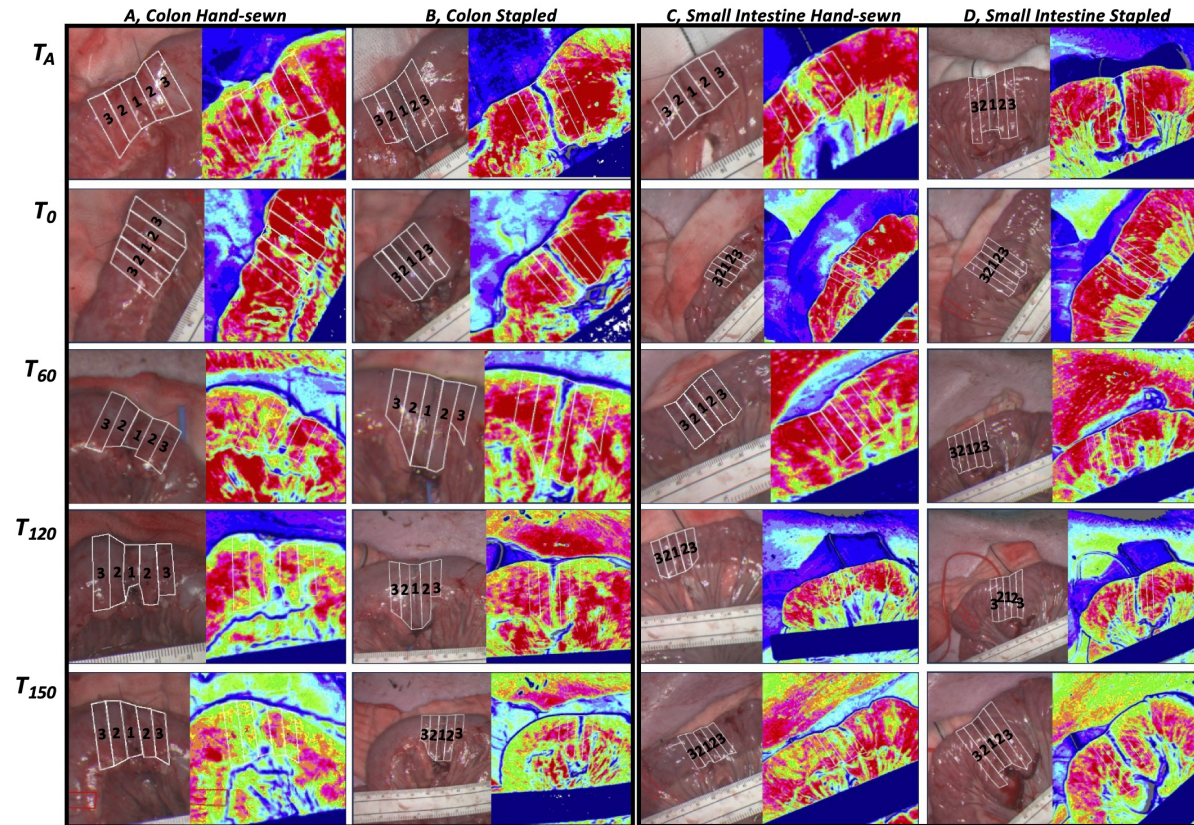


Supplementary figure 1: LSCI measurements of all anastomoses



Suppl.Fig. 1 LSCI measurements of all anastomoses at specific time points: A, Colon Hand-sewn; B, Colon Stapled; C, Small Intestine Hand-sewn; D, Small Intestine Stapled
The placement of regions of interest (ROIs) is indicated on all white light images using bold markings: ROIs were placed adjacent to each other, with ROI 1 centered on the anastomosis, ROI 2 ± 5 mm on either side, and ROI 3 ± 10 mm on either side of the anastomosis. A color scale ranging from red to blue indicates good to poor perfusion, respectively. TA = Immediately after anastomosis formation; T0 = One hour of rest/start of E.coli infusion; T60, T120, T150 = Measurements taken during E.coli infusion/sepsis, number indicates minutes from start of E.coli infusion.

Supplementary Table 1	T _B	T _A	T ₀	T ₃₀	T ₆₀	T ₉₀	T ₁₂₀	T ₁₅₀
Colon untouched	1051(ref.)	1194(1083-1304)	1144(1083-1304)	989(902-1076)	958(873-1043)	858(810-906)	859(771-947)	734(648-829)
Microcirculation in colon hand-sewn								
Anastomosis		584(460-709)	713(584-842)	716(563-869)	735(569-902)	611(473-749)	580(457-704)	538(406-670)
±5mm		971(865-1076)	1031(921-1141)	950(838-1061)	912(800-1024)	796(713-879)	749(645-853)	678(564-792)
±10mm		1088(996-1181)	1091(986-1195)	1000(910-1090)	913(825-1001)	830(749-910)	769(657-881)	725(607-843)
Microcirculation in colon stapled								
Anastomosis		447(374-520)	529(434-625)	547(477-618)	585(444-725)	491(407-575)	471(386-555)	364(271-458)
±5mm		924(821-1026)	871(776-965)	867(807-927)	852(769-934)	730(669-790)	710(622-798)	585(486-685)
±10mm		1130(1000-1259)	976(897-1055)	910(848-973)	905(824-987)	823(760-886)	806(712-899)	647(562-732)
Small intestine untouched	1989(ref.)	1689(1609-1769)	1796(1699-1894)	1521(1402-1641)	1378(1271-1485)	1478(1392-1563)	1392(1289-1494)	1327(1225-1429)
Small intestine Hand-sewn								
Anastomosis		736(597-874)	1066(980-1152)	1067(909-1224)	1018(830-1206)	1042(909-1175)	994(791-1197)	904(731-1077)
±5mm		1289(1192-1386)	1624(1546-1702)	1448(1308-1588)	1341(1228-1455)	1410(1336-1485)	1375(1266-1484)	1248(1138-1357)
±10mm		1563(1456-1671)	1753(1663-1843)	1477(1355-1598)	1409(1283-1535)	1513(1425-1600)	1468(1353-1583)	1352(1229-1475)
Small intestine Stapled								
Anastomosis		741(646-836)	834(719-950)	813(696-930)	752(644-859)	782(711-852)	709(598-819)	732(610-853)
±5mm		1431(1335-1528)	1407(1331-1484)	1252(1177-1326)	1169(1060-1277)	1214(1115-1313)	1176(1084-1269)	1139(1031-1246)
±10mm		1645(1578-1712)	1569(1491-1647)	1372(1274-1469)	1310(1207-1414)	1337(1258-1415)	1285(1193-1378)	1241(1129-1353)

Suppl. Table 1: Microcirculatory changes in colonic and small intestine anastomoses in porcine model

LSCI measurements presented as the mean laser speckle perfusion unit (LSPU) value (95% CI).

ROI 1 centered on the anastomosis, ROI 2 ±5 mm on either side, and ROI 3 ±10 mm on either side of the anastomosis. Time points: T_B = Baseline measurements; T_A = Immediately after anastomosis formation; T₀ = After One hour of rest/start of *E.coli* infusion; T₃₀, T₆₀, T₉₀, T₁₂₀, T₁₅₀ = Measurements taken during *E.coli* infusion/sepsis, number indicates minutes from start of *E.coli* infusion. Baseline values were used as reference values (ref.) in the analysis to evaluate the time-based progression.

LSCI: Laser speckle contrast imaging. CI: Confidence Interval. *E.coli*: *Escherichia coli*

Supplementary table 2		Mucosa					Submucosa				
		<i>Epithelial damage</i>	<i>Hemorrhage</i>	<i>Hyperemia</i>	<i>Edema</i>	<i>NG infiltrations</i>	<i>Necrosis</i>	<i>Hemorrhage</i>	<i>Hyperemia</i>	<i>Edema</i>	<i>Necrosis</i>
Small intestine Baseline		0	0	0	0	1	0	0	0	0	0
Small intestine PostOP		0	0	0	0	0	0	0	0	0	0
Colon Baseline		0	0	1	0	2	0	0	1	0	0
Colon PostOP		0	1	9	0	0	0	0	0	0	0

Suppl. Table 2: Overview of results from the histological analysis.

Baseline tissue was collected at the beginning of the procedure, while postoperative (PostOP) samples were obtained at the end of the experiment, immediately before euthanasia. A total of ten baseline and ten postoperative specimens were collected. Numbers marks the presence of the sought characteristics; 0=not present in any specimen; 10=present in all specimens.

NG = neutrophil granulocyte infiltration.