

Monitoring you can trust.

Doppler

BLOOD FLOW MONITORING SYSTEM

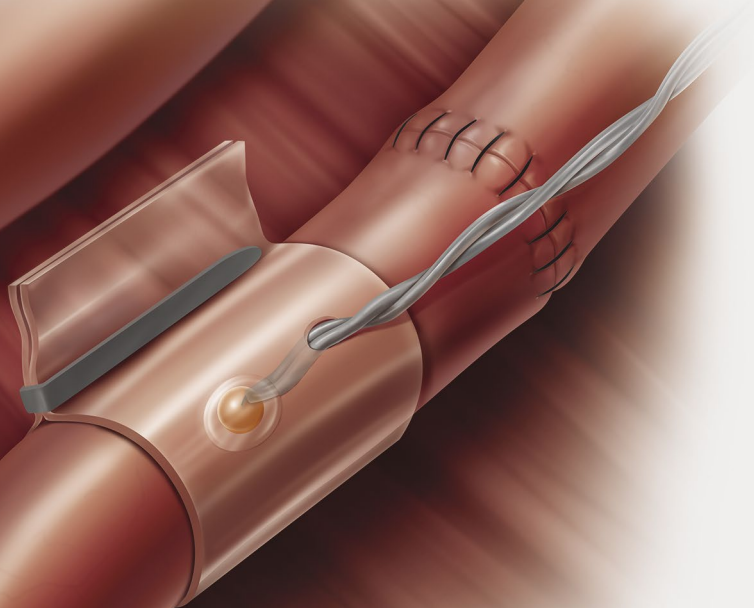
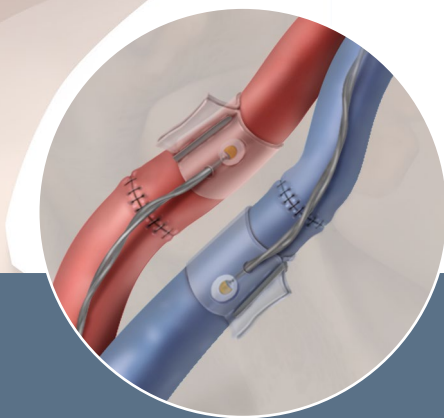


Illustration by Lisa Clark



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Doppler

BLOOD FLOW MONITORING SYSTEM

How can the Doppler system augment clinical assessment?

By providing a way to **track blood flow continuously**, both intraoperatively and postoperatively

By **monitoring buried flaps** and other surgical sites that are difficult to monitor clinically

The Doppler monitor provides audible (primary) and visual (secondary) feedback of blood flow when connected to the implantable Cook-Swartz Doppler Probes and extension cables.

By allowing you to see and hear the presence or absence of blood flow, the Doppler system can alert you to flap failure in time to perform a salvage procedure.



Cook-Swartz Doppler Probe



Doppler Extension Cable



Doppler Channel/
Cable Verifier



Doppler Battery Charger

IMMEDIATE DETECTION = IMMEDIATE INTERVENTION

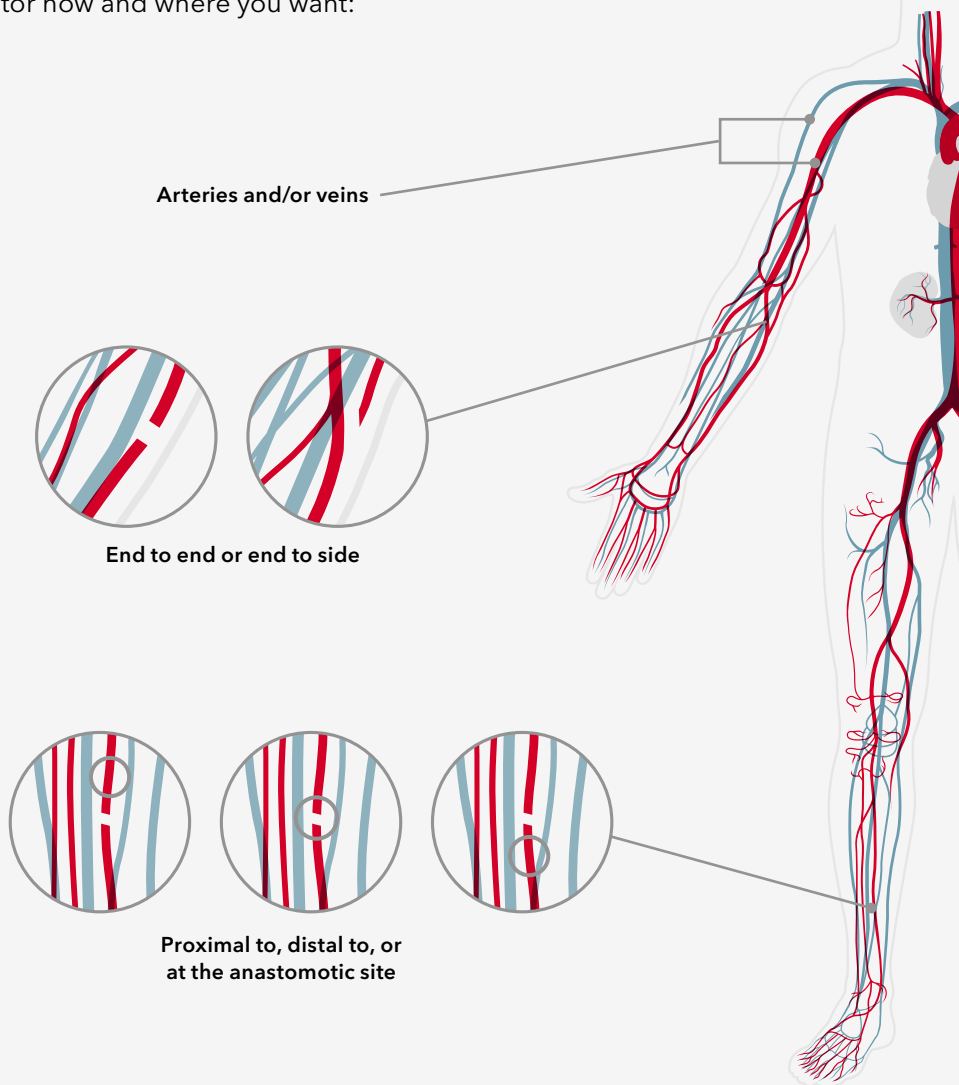
Healthcare staff can immediately detect arterial or venous thrombosis or loss of patency from external compression or kinking of pedicle vessels.

The clinician and healthcare staff can quickly interpret the results of the monitoring and take necessary action.

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More placement options

The Doppler system offers flexible placement options so you can sensitively and specifically monitor how and where you want:



The Doppler system gives you the ability to monitor continuously or periodically with clear results in a range of procedures:



Head and neck surgery

Reconstructive
microvascular procedures

Reimplantations

Access to buried flaps

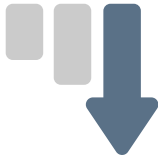
Monitor buried flaps—including flaps in challenging anatomical locations that are difficult to evaluate clinically—and potentially detect flap compromise earlier.¹

In specialties such as **head and neck surgery**, where buried flaps are common, the salvage rates with the Doppler system can be more than double that of conventional monitoring.²

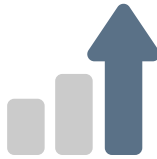
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Proven performance

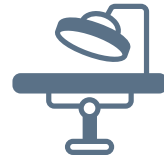
Over twenty years of clinical evidence have established the Doppler Blood Flow Monitoring System as a trusted complement to clinical monitoring that can contribute to more favourable outcomes:



**37%+ lower
failure rates³**



**57-73% higher
salvage rates³**



**Fewer returns
to the OR⁵**

Economic value

The use of the Doppler system potentially offers a number of economic benefits.

It can identify compromised flap perfusion in time to permit flap salvage, **eliminating the cost** of harvesting a new flap.⁶

The cost of **the Doppler system itself 'can be compensated or even reversed'**, depending on the initial flap salvage rate in the health facility and the type of free flap (buried vs. non-buried).⁹

20+

years of
clinical evidence

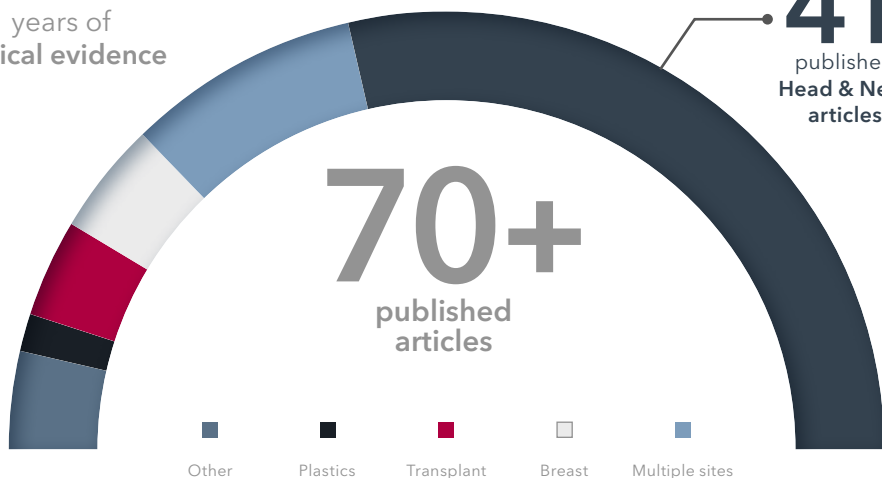
*As of 1 June 2021

41

published
Head & Neck
articles

70+

published
articles



Other

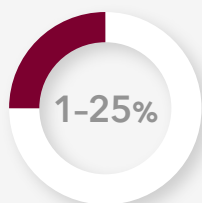
Plastics

Transplant

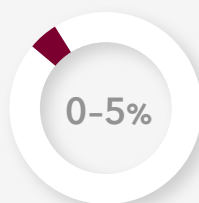
Breast

Multiple sites

False positives and negatives



False positive rates of **1% to 25%** have been reported in clinical studies in which the Doppler system has been evaluated.^{6,7,8} However, the rate of false positives may be reduced by appropriate training and protocols.⁹



The false negative rate for the Doppler has been reported as between **0% and 5%**.^{7,8} This suggests that the risk of the Doppler failing to detect a compromised free flap is very low.

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References

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7. Teven CM, Ooi ASH, Inbal A, et al. Implantable Doppler monitoring of buried free flaps during vascularized lymph node transfer. *J Surg Oncol*. 2017;116(3):371-377.
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