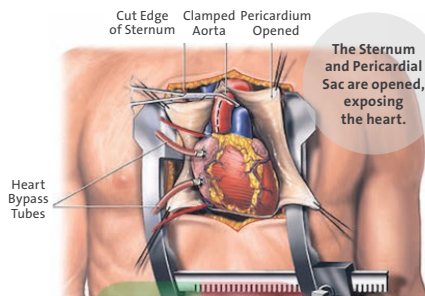


Cardiovascular Primer

Key Procedures and Potential Bleeding Sites

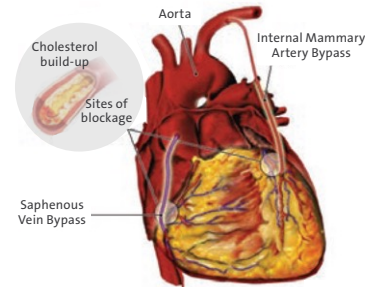
STERNOTOMY An incision is made from the suprasternal notch to below the xiphoid process in order to gain access to the heart for a number of open surgical procedures.



Potential bleeding sites:
sternal bone bleeding

ILLUSTRATION: [HTTP://ALAMY.COM/STOCK-PHOTO-HEART-SURGERY-AORTIC-VALVE-REPLACEMENT-7712020.HTML](http://alamy.com/stock-photo-heart-surgery-aortic-valve-replacement-7712020.html)

CORONARY ARTERY BYPASS GRAFT (CABG) Surgery is performed to restore blood flow to the heart through coronary arteries that have been blocked.

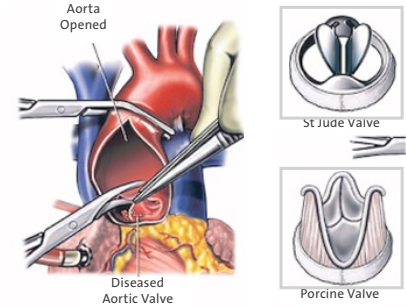


Potential bleeding sites: vein or artery harvesting, epicardial bleeding, suture line bleeding, endoscopic vein harvesting, adhesions in redo CABG procedures

ILLUSTRATION: ©MEDICINENET, INC.

VALVE REPAIR/REPLACEMENT

The most common valves that require replacement are the aortic and mitral. A mechanical or tissue valve can be used for replacement.

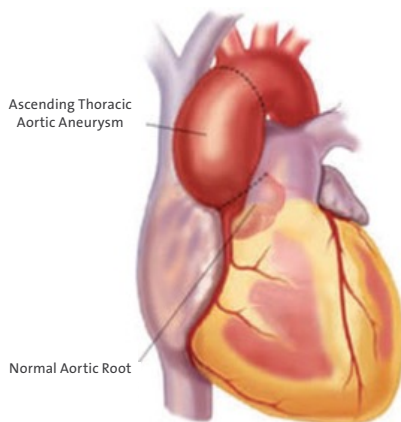


Potential bleeding sites: aortotomy or atriotomy suture line bleeding

ILLUSTRATION: [HTTP://ALAMY.COM/STOCK-PHOTO-HEART-SURGERY-AORTIC-VALVE-REPLACEMENT-7712020.HTML](http://alamy.com/stock-photo-heart-surgery-aortic-valve-replacement-7712020.html)

AORTIC ANEURYSM/ROOT REPAIR

Repair of defects in the aorta, the major arterial vessel exiting the heart.



Potential bleeding sites: cannulation and catheter placement sites

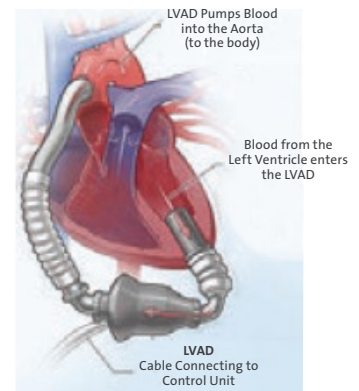
ILLUSTRATION: [HTTP://COUGHINGUPBLOOD.NET/MITRAL-VALVE-REPAIR-SURGERY-REVIEW/](http://coughingupblood.net/mitral-valve-repair-surgery-review/)

BRIDGE TO TRANSPLANT OR DEVICE IMPLANTATION

A Left Ventricular Assist Device (LVAD) may be implanted as a bridge to transplant if the patient is not eligible for a heart transplant. Other open procedures to insert a device in or around the heart include implantation of a pacemaker or defibrillator (ICD).

Potential bleeding sites: sternal bone bleeding, suture line bleeding, anastomotic bleeding, and the implantation pocket

ILLUSTRATION: [HTTPS://LIFEINTHEFASTLANE.COM/CCC/VENTRICULAR-ASSIST-DEVICE/](https://lifeinthefastlane.com/ccc/ventricular-assist-device/)



INDICATIONS FOR USE — CE*

5 cm X 5 cm (2"x2"), 5 cm x 7.5 cm (2"x3"), 10 cm x 10 cm (4"x4")

CE Class III Surgical Implantable haemostat effective in the management of capillary, venous, and arterial bleeding during surgical procedures.

WoundClot Surgical is indicated for the control of mild, moderate, and severe perioperative and postoperative bleeding for all surgical indications.

*Indication may vary by country outside of Europe.

Cardiovascular Primer

CHALLENGES

- Intraoperative and postoperative bleeding from anastomotic sites
- High-pressure suture hole/anastomotic bleeding
- Friable tissue
- Difficult-to-reach locations
- Cardiopulmonary bypass and systemic heparinization
- Adhesiolysis bleeding
- Postoperative bleeding leading to revision/reoperation procedures

PROBING QUESTIONS FOR HEALTHCARE PROFESSIONALS

- What hemostatic agents do you currently use?
- What are the advantages of these products?
- What are their challenges and/or limitations?
- How do you manage non-technique-related bleeding caused by blood thinning medicines?
- Do you use multiple hemostatic agents? Why?

PROBING QUESTIONS FOR ADMINISTRATORS/SUPPLY CHAIN

- How much time does your staff spend preparing (mixing/thawing) hemostats before a case?
- Are you interested in reducing costs by adopting a product that offers the highest hemostatic efficacy possible at low cost?

SALES SCRIPT

WoundClot is a next generation, ready-to-use bioabsorbable hemostatic gauze indicated for the control of mild, moderate, and severe perioperative and postoperative bleeding. WoundClot is effective in the management of capillary, venous, and arterial bleeding during surgical procedures.

When WoundClot encounters blood, it converts into a thick, tenacious, expanding gel, adhering to wound surfaces. WoundClot does not require the application of manual pressure and will absorb up to 2500% of its weight in fluid. WoundClot offers the highest hemostatic efficacy possible at low cost and is ideal for use in all surgical specialties including: Spine, Neuro, Cardiac, Thoracic, General, GYN, Ortho, Urology.

Would you like to try WoundClot in an upcoming surgical case?

COMMONLY ASKED QUESTIONS

What is WoundClot made from?

WoundClot is made from cellulose, a natural fiber product. WoundClot is the only non-oxidized, non-regenerated cellulose structure (NONRCS) product in the world. Other hemostatics made from cellulose are manufactured utilizing an obsolete method that breaks down cellulose by oxidization, greatly decreasing the product's ability to absorb blood, adhere to wound surfaces, and create an environment that is conducive to achieving hemostasis.

How does WoundClot work?

Unlike any other hemostatic product available today, WoundClot has multiple mechanisms of action. When WoundClot contacts blood, it converts into a thick, tenacious, expanding gel, adhering to wound surfaces. WoundClot does not require the application of manual pressure to be effective. WoundClot is highly absorbent and will absorb up to 2500% of its weight in fluid. It also remains actively absorbent for up to 24 hours in the wound. The product is engineered so it will activate 2 key factors.

Does WoundClot Hemostatic Gauze work on the clotting cascade?

Yes, it is one of the mechanisms of action WoundClot utilizes to achieve rapid hemostasis. WoundClot is engineered to activate Factors XI and XII.

How is WoundClot different from mineral-based hemostatics?

Mineral-based hemostatics are comprised of a nonresorbable, non-woven fiber impregnated with an active ingredient like Kaolin. Kaolin is an inorganic fine, white clay powder, resulting from the natural decomposition of other clays or feldspar. These products utilize a single mechanism of action: activation of Factor XII (Hageman Factor). They require the application of intense manual pressure for at least 3-5 minutes in order to be effective. WoundClot utilizes multiple mechanisms of action: rapid fluid absorption, adherence and expansion in the wound, aggregation of platelets, red blood cells (RBCs), and clotting factors, creation of an environment conducive to clotting, as well activation of Factors XI and XII.

How easily is WoundClot removed from wounds?

WoundClot is easily removed from a wound by simply removing the clot. Rebleeding will not occur and any remaining gel can be easily irrigated out of the wound.