

EndoClot[®] FAQ

What is EndoClot[®] PHS?

EndoClot[®] PHS (Polysaccharide Hemostatic System) is a single-use medical device composed of absorbable modified polymer (AMP[®] particles) and an applicator with a tube connecting to a clean external air source (preferably EndoClot[®] Air Compressor) to spray the plant-based absorbable hemostatic powder onto the bleeding site in both upper and lower GI tract. AMP[®] particles have been used in over 400,000 open surgery cases, and it is proven to be safe and effective.

How does it work?

AMP[®] particles have a molecular structure that rapidly absorbs water from blood. This dehydration process causes a high concentration of platelets, red blood cells, and coagulation proteins (thrombin, fibrinogen, etc.), which accelerates the normal, physiologic clotting cascade. When in contact with blood, AMP[®] particles support the formation of a gelled, adhesive matrix which provides a mechanical barrier to further bleeding.

How long will the EndoClot[®] powder stay in the GI tract?

AMP[®] particles are degraded within a few hours depending on the amount of material applied and the site where it is used within the GI tract. AMP[®] particles are degraded by amylase and glucoamylase.

When should I use EndoClot[®] PHS?

EndoClot[®] PHS works particularly well in controlling oozing bleeding over large areas, indications such as:

- Ulcerative bleeding
- Post polypectomy
- Tumor bleeding
- Post EMR, ESD
- In-stent bleeding
- Mallory-Weiss tear etc.



EndoClot[®] PHS is also a good complimentary method to use in combination with other conventional techniques. EndoClot[®] PHS is not recommended as a monotherapy for controlling Forrest Ia bleeding or variceal bleeding.

What are the technology advantages of the EndoClot[®] application system?

- The unique anti-reflux design prevents occlusion
- The powder is sprayed directly to the designated area without stress to the lesion
- Works for both gastroscopy and colonoscopy
- Enables gradual and precise powder delivery to avoid a "white out" effect

What are the advantages of AMP[®] powder?

- Contains no human or animal components
- Effective hemostat
- 100% biodegradable
- Can be used in combination with other established techniques in any sequence
- Can be easily irrigated and re-applied if necessary

Is Endoclot[®] PHS effective for patients with impaired coagulation? A

Clinical study suggested that sufficient hemostasis can be achieved by using EndoClot[®] PHS for patients receiving anticoagulant medication or other coagulation impairment.

Does the gelled matrix need to be removed?

It is not necessary to irrigate the powder or clot away after hemostasis is achieved. The AMP[®] particles are plant-starch derived polysaccharide; it will be digested and absorbed naturally.



How can I prevent the catheter from becoming occluded?

- If you believe the accessory channel is very wet, use an empty syringe to pump air in prior to the insertion of the catheter.
- Make sure the air compressor is switched on and in the "H" mode before inserting the catheter into the accessory channel.
- Avoid direct contact with the lesion or surface of the mucosa.
- Keep the tip of catheter at least 1cm away from the lesion during the spray application.

Are there any side-effects of EndoClot[®] PHS?

No, there have been no reported side-effects.

Can I use EndoClot[®] PHS if the patient is allergic to starch?

Though it is very rare, if the patient is known to be allergic to starch, EndoClot[®] PHS should not be used.

How can I use EndoClot[®] PHS with clips?

EndoClot[®] PHS can be used in any sequence with clips.

- It can be used as a diagnostic tool to identify the exact bleeding spots for clipping.
- It can be used as an add-on therapy to clipping to achieve complete hemostasis.

What data/publications are currently available for EndoClot[®] PHS?

- Early Clinical Experience of EndoClot[™] in the Treatment of Acute Gastrointestinal Bleeding. Halkerston K, Evans J, Ismail D, et al. Gut.2013; 62(Suppl 1): A149.
- Hemostasis with Powder-Experience with EndoClot[™] in Difficult UGI Bleedings. Müller-Cerbes D, Beeck A, Dormann A, et al. Endoskopie heute. 2013; (26(4)): 254-8.
- Improved Techniques for Endoscopic Mucosal Resection (EMR) in Colorectal Adenoma. Sold M, Kahler G. Viszeralmedizin. 2014; 30:000-000.



- Polysaccharide hemostatic system for hemostasis management in colorectal endoscopic mucosal resection. Huang R, Pan LY, Hui N, et al. Digestive Endoscopy. 2014; 63-68.
- Single Center Experience with EndoClot[™] Powder Spray for Upper Gastrointestinal Bleed. Kasimanickam M, Vinnamale S, Andrew MR, et al. Gut. 2014; 63(Suppl 1): A53-54
- The use of EndoClot[™] Therapy in the Endoscopic Management of Gastrointestinal Bleeding. Patel J, Bhuva M, Al-Bakir I, et al. Gut. 2014; 63: A55-A51.