

## SURGICLEAN / Patented Hemostatic Technology

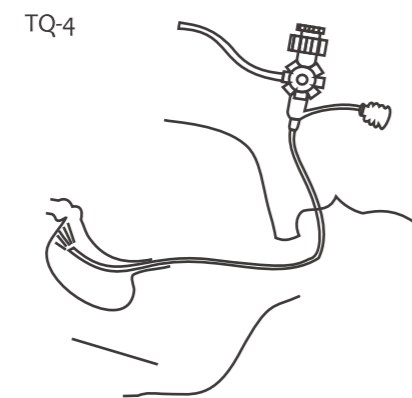
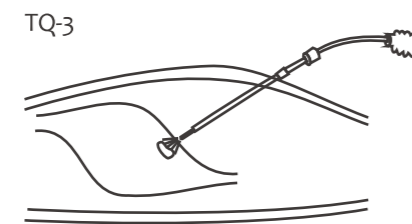
### Surgiclean Innovative Delivery System



Surgiclean innovative applicators are made of medical polymer materials and have good biocompatibility, can provide smooth and precise delivery of the Surgiclean MPH Absorbable Hemostatic Particles to bleeding surgical sites.

TQ-1 (14cm tube length, CE mark) and TQ-2 (38cm tube length, CE mark) are designed for open surgical procedures or endoscopic / laparoscopic surgical procedures.

TQ-3 (25cm tube length) and TQ-4 (2m catheter length, CE mark) are dedicated applicators for endoscopic/laparoscopic surgical procedures.



### Certificate and Honor

Surgiclean MPH Absorbable Hemostatic Particles and Applicator obtained a patent certificate issued by State Intellectual Property Office of China respectively in 2006 and 2014. The Absorbable Hemostatic Particles, honored as “Zhejiang High-Quality Manufactured Products” and “Zhejiang Excellent Industrial Products”, got the Ingenuity Award in China Manufacturing Excellence & Innovation Awards 2019.

#### Applicator Model No.

Product	Specification	Model No.
MPH Absorbable Hemostatic Particles Applicator(TQ-1)	TQ-1 (14 cm tube length)	APL-TQ-1
MPH Absorbable Hemostatic Particles Applicator(TQ-2)	TQ-2 (38 cm tube length)	APL-TQ-2
MPH Absorbable Hemostatic Particles Applicator(TQ-3)	TQ-3 (25 cm tube length)	APL-TQ-3
MPH Absorbable Hemostatic Particles Applicator(TQ-4)	TQ-4 (2m tube length)	APL-TQ-4

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SURGICLEAN

MPH Absorbable Hemostatic Particles

CE  
2460

### Patented Hemostatic Technology



Plant Based-100% Absorbable - Safe - Effective - Easy to Use

**Singclean Medical**

# SURGICLEAN / Patented Hemostatic Technology

## Surgiclean MPH Absorbable Hemostatic Particles

Surgiclean Microporous Polysaccharide Hemospheres (MPH) Absorbable Hemostatic Particles are prepared with potato starch as raw material using the emulsification and crosslinking technology. It can absorb and lock water several times over weighting themselves instantly to form gels with hydrophilic molecular sieve properties.

### Introduction

Surgiclean MPH Absorbable Hemostatic Particles is applied to surgical wound site as an absorbable hemostat to stop bleeding in capillary, vein and small arteries when conventional procedures like ligature, pressure are ineffective.

Surgiclean can successfully stop bleeding in seconds. Specific time is dependent on the amount applied and the site being treated.

### Surgiclean

Safe / Effective / Easy to Use

#### 100% Plant Based

No components of animal or human origin, reducing the risks of foreign body reaction and infection

#### No Residue

Surgiclean will be degraded into maltose and glucose by amylase and  $\alpha$ -glucoside, and finally become water and carbon dioxide. It can be fully absorbed within 14 days.

#### Double

hemostasis-mechanical plugging, accelerate endogenous clotting mechanism

#### Dual Action Mechanism

Ultra-hydrophilic nature enhances and accelerates the clotting cascade, coupled with the formation of a gelled matrix, which forms a mechanical barrier to bleeding

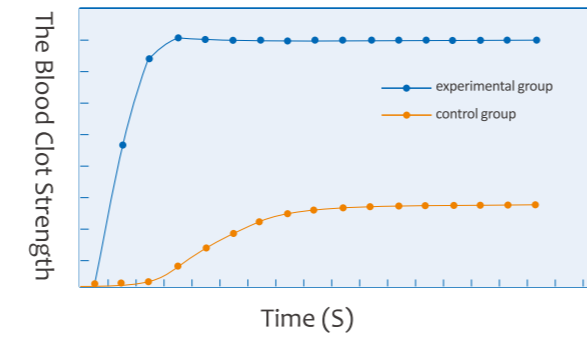
#### Easy

to apply to various irregular and complex wound

#### No

prep or special storage requirements-ease of use

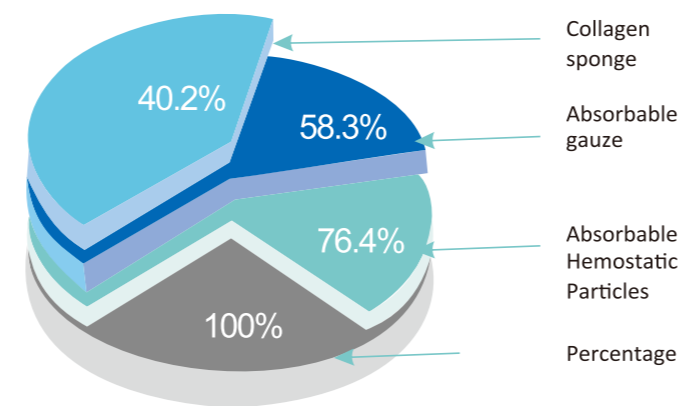
## Blood clot strength is 2-3 times as physiological blood clot



Data Comparison to Reach the Highest Blood Clot Strength

Group	Time Required (S)	Blood Clot Strength MA Value (mm)
Experimental Group	3	68±17
Control Group	10	27±15

## Success Rate of Hemostasis in 3 Mins is Higher Than Other Hemostats



### Dosage

Maximum dosage shall not exceed 5g per person each time.

### Shelf Life

3 years.

### Surgiclean® Model No.

Brand	Specifications	Model No.
Surgiclean®	0.5g/piece	MPH-SG-0.5
	1.0g/piece	MPH-SG-1.0
	2.0g/piece	MPH-SG-2.0
	3.0g/piece	MPH-SG-3.0
	5.0g/piece	MPH-SG-5.0

## Fields of Application

- Cardiovascular surgery
- Thoracic surgery
- Hepatobiliary surgery
- Bone surgery
- General surgery
- Burn surgery
- Plastic surgery
- Cosmetic surgery
- ENT surgery



Adrenal Tumor Resection Surgery



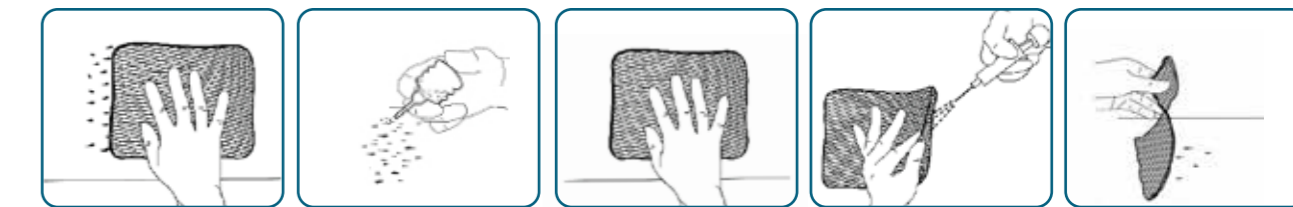
Surgery for Esophageal Cancer

## Tips

(1) Dosage: Generally each gram Surgiclean hemostatic powder can treat 15cm<sup>2</sup> surgery wound place, average thickness 1mm.

(2) For bleeding and reducing postoperative drainage, clean the postoperative wound fluid, spray the Surgiclean in small amount and evenly according to the surgery closing levels and sequence.

## Application Technique: 5 Easy Steps



#### Step 1-Clean

Clean the wound by using aseptic sponge or gauze to expose the hemorrhagic sites.

#### Step 2-Apply

Apply Surgiclean® powder to the bleeding site immediately.

#### Step 3-Press

Press on the wound with a dry gauze for 1-3 minutes.

#### Step 4-Irrigate

Irrigate saline to moisten gauze.

#### Step 5-Remove

Remove the gauze to complete hemostasis. If bleeding or oozing continues, repeat the above methods.

Dosage: Usually, each gram of Surgiclean® can treat 15cm<sup>2</sup> surgical wound, with an average thickness of 1 mm.