Part No | Initial Length (mm) | PSI Rating | Maximum Diameter (mm) | Maximum Length (mm) | Maximum Volume (cc)
---|---|---|---|---|---
SWS10 | 300 | 14 | 16 | 4 |
SWS15 | 300 | 17 | 22 | 4 |
SWS20 | 300 | 19 | 54 | 6 |

**Balloon Expansion & Catheter**

**Part No**
- SWS10
- SWS15
- SWS20

**Initial Length (mm)**
- 300

**PSI Rating**
- 14
- 22
- 16

**Maximum Diameter (mm)**
- 16
- 22
- 16

**Maximum Length (mm)**
- 4
- 4
- 4

**Maximum Volume (cc)**
- 4
- 4
- 4

---

**Spinal Alignment System for VCF**

**1 Kit Composition**

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<thead>
<tr>
<th>Part No</th>
<th>Description</th>
<th>EA / Kit</th>
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<tr>
<td>SWS10</td>
<td>Balloon Catheter</td>
<td>1 EA</td>
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<tr>
<td>SWMP</td>
<td>Balloon Expander</td>
<td>2 EA</td>
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<tr>
<td>SWMVP</td>
<td>Bone Marrow Needle</td>
<td>1 Set</td>
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<tr>
<td>SWM-1</td>
<td>Guide Wire</td>
<td>2 EA</td>
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<tr>
<td>SWM-2</td>
<td>Cannular</td>
<td>2 Sets</td>
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<tr>
<td>SWM-3</td>
<td>Bone Drill</td>
<td>1 EA</td>
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<tr>
<td>SWM-4</td>
<td>Bone Cement Filler</td>
<td>6 Sets</td>
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**2 Kit Composition**

<table>
<thead>
<tr>
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<th>Description</th>
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<tbody>
<tr>
<td>SWS10</td>
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<tr>
<td>SWM-3</td>
<td>Bone Drill</td>
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<tr>
<td>SWM-4</td>
<td>Bone Cement Filler</td>
<td>6 Sets</td>
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**Ordering Information**

**Seawon Meditech Co., Ltd.**

1 Forrest Units, Hennock Road East, Marsh Barton, Exeter EX2 8RU, U.K.

TEL. +44 1392 829500   FAX. +44 1392 823232

e-mail: cm@seawonmeditech.com www.seawonmeditech.com

**Dongbang Acuprime Inc.**

101-9, 7th-1, Hwanpyung-dong, Bucheon-si, Gyeonggi-do, Korea

TEL. +82 32 684 7071~7074   FAX. +82 32 684 7075

e-mail: swmt@seawonmt.com www.seawonmt.com

---

**Spinal Alignment System for VCF**

**Indication**
- VCF (Vertebral compression fracture due to Osteoporosis)
- Osteolytic fracture
- Metastatic bone fractures

---

**Surgical Technique - Balloon Expander & Catheter**

**Step-1**: Filling the cylinder with contrast agent

1. Pull the handle of the balloon expander (SWMP) to fill the cylinder with approx. “100cc” of contrast agent.
2. Then move the seal to the “lock” position.

**Step-2**: Removing air from the cylinder

1. The seal of the balloon expander (SWMP) should be moved to the right and pulled to remove air from the cylinder.

**Step-3**: Connecting balloon catheter

1. Remove the cover of the balloon catheter (SWS10 or SWS15 or SWS20).
2. Turn the handle to the right just before the “0” marking to remove air from the system.

**Step-4**: Removing residual air from the system

1. To remove the remaining air, turn the handle of the balloon expander (SWMP) to the right. The balloon inflates.

**Step-5**: To remove the air from the balloon catheter (SWS10 or SWS15 or SWS20), move the locking mechanism to the “unlock” position. Pull the handle of the balloon catheter and move the locking mechanism to the “lock” position.

---

**Indication**
- VCF (Vertebral compression fracture due to Osteoporosis)
- Osteolytic fracture
- Metastatic bone fractures

---

**2Way Valve**

- “OFF” position
- “ON” position

---

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---

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101-9, 7th-1, Hwanpyung-dong, Bucheon-si, Gyeonggi-do, Korea

TEL. +82 32 684 7071~7074   FAX. +82 32 684 7075

e-mail: swmt@seawonmt.com www.seawonmt.com
**Special Feature**

Pressure Gauge indicates the pressure of the balloon. Release Button helps to control compression and decompression by turning on “LOCK” and “UNLOCK”.

---

**SWS10/15/20 Balloon Catheter**

- **SWMVP** Bone Marrow Needle
- **SWM-1** Guide Wire
- **SWM-2** Cannula
- **SWM-3** Bone Drill
- **SWM-4** Bone Cement Filler

---

**Surgical Technique**

**Step-1**

- Transpedicular with the bone puncture needle(SWMVP) up to bone into the vertebral body.

**Step-2**

- Pull the tip of the bone puncture needle(SWMVP)

**Step-3**

- Insert the guide wire(SWM-1)

**Step-4**

- Remove the guide wire(SWM-1) & trocar(SWM-2), only the working cannula(SWM-2) remains in the vertebral body.

**Step-5**

- Insert the bone drill(SWM-3) into the working cannula and make the room in the vertebral body for the balloon catheter.

**Step-6**

- Move the bone cement applicator(SWM-4) back and forth through the cannula(SWM-2) several times to prevent the balloon from bursting due to sharp bone fragments.

**Step-7**

- Move the bone cement applicator(SWM-4) out and forth through the cannula(SWM-2) several times to prevent the balloon from bursting due to sharp bone fragments.
Surgical Steps

1st Step
No General Anesthetic But Local Anesthetic.

2nd Step
Insert an epidural needle (15 Gauge) through Hiatus to make a small hole to be the pathway with guide only for the catheter. Then, take out the stylet leaving the introducer & needle in the hiatus.

3rd Step
Inject the contrast medium to see whether or not the epidural needle is well placed.

4th Step
Take out the needle leaving introducer in the hiatus.

5th Step
Insert the catheter from the introducer to the targeted treatment.

6th Step
Inject the mixed medicine into the catheter through the infusion port for the targeted injections. The guide wire may be removed per the user’s preference.

7th Step
Take out catheter & introducer.
Typical Indications
- Chronic Back Pain
- Spinal Stenosis
- Post-Laminectomy Syndrome
- Herniated Nucleus pulposus
- Failed Back surgery (except the fibrosis which has become serious after total laminectomy)

Advantages
- Low risk therapy
- Minimally invasive
- No general anesthetic
- High success rates
- No scar formation
- No open surgery
- No long hospitalization
- Quick recovery
- Repeatable at any time
- Also ideal for patients who have undergone previous surgery
- Targeted treatment of causes

Contradictions
- Lack of patient’s consent
- Patient with inflammation of the skin around the puncture site
- Patient with inflammation in the bloodstream
- Patient with Hemorrhagic diathesis
- Patient with hypovolemia
- Patient who takes the bleeding disorder (coagulopathy) or anticoagulant medication [e.g. warfarin, aspirin, plavix]

St. Reed (Steerable Neurolysis Catheter System)

“Steerable Neurolysis Catheter Technique”, this proven method has been used to decompress spinal nerves without open surgery and lasting alleviate the pain associated with acute and chronic spine disorders. St. Reed which is a sort of steerable neurolysis catheter technique systems for the foresaid proven method has the control handle to steer and ideally target with precision through the spinal canal for precise treatment of pathology.

Features
- Radiopaque & soft aromatic Shaft
- Steerable Aromatic distal tip
- Easy to handle
- Easy to steer precisely
- No need to withdrawn the stylet to inject the medication

A. E-Catheter (SWCATH 30)

B. Bone Marrow Needle (SWVP-30A)

<table>
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<tr>
<th>Catheter (SWCATH30)</th>
<th>SWVP30A</th>
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<tr>
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<td>OD</td>
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<tr>
<td>Gauge</td>
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(Unit: mm, Tolerance: ± 5%)
Surgical Steps

- An epidural needle (15G) is inserted into the epidural space of the spine through Hiatus above the coccyx.

- See whether or not the epidural needle (15G) is well placed through the use of the contrast medium.

- Take out the stylet leaving the introducer in the hiatus.
  Insert the catheter from the introducer to the targeted treatment point.
  Check where the catheter is placed with C-Arm.
  Inject the mixed medicine into the catheter through the injection hole of the body.

- The entire procedure takes only 30-40 minutes. In as little as an hour after the procedure the patient can stand up and move around. An inpatient stay usually lasts three to four days. During this time the patient receives four further injections of pain medication, saline solution and enzymes through the catheter.
What is “Epidural Catheter Technique” and what is “St.COX”?

“Epidural Catheter Technique”, this proven method has been used to decompress spinal nerves without open surgery and lastingly alleviate the pain associated with acute and chronic spine disorders. St.Cox is a sort of Epidural Catheter Systems for the foresaid proven method by enabling the physician to combat the pain at its source in the spine by enhancing the capability to steer to the target site.

**Typical Indications**
- Acute disc herniation
- Recurring disc protrusion and herniation
- Disc protrusion with nerve root irritation
- Chronic back pain
- Spinal canal stenosis (spinal canal narrowing)
- Foraminal stenosis
- Spondylolthesis
- Nerve irritation syndrome  
  (associated with degenerative spinal conditions)
- Failed back surgery
- Chronic pain after disc surgery  
  (post-nucleotomy syndrome)

**Advantages**
- Low risk therapy
- Minimally invasive
- No general anesthetic
- High success rates
- No scar formation
- No open surgery
- No long hospitalization
- Quick recovery
- Repeatable at any time
- Also ideal for patients who have undergone previous surgery
- Targeted treatment of causes

**Features**
- The stylet is making the soft catheter less soft and to cut the dura mater more easily.
- No need to withdrawn the stylet to inject the medication
- Surgical grade stainless steel
- Flexible atraumatic tip design
- Kink & collapse resistant
- Radiopaque for distinct images and placement accuracy
- Non-reactive with neurolytics: Phenol, alchol, glycerol,etc.
- Tensile spring guided catheter
- Stimulation

<table>
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<td>Inner Diameter</td>
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<tr>
<td>600.0</td>
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</table>
Platelet Rich Plasma

SW-PRP

The Axis of your Health Life
Platelet Rich Plasma (PRP) is a concentrated source of autologous platelets. It contains several different growth factors and other cytokines that stimulate healing of bone and soft tissue.
Growth Factor of PRP

**Insulin-like growth factor**
Key regulator of cell metabolism and growth
Stimulates proliferation and differentiation functions in osteoblasts

**Platelet-derived growth factor**
Major mitogen for connective tissue cells and certain other cell types. Promotes the synthesis of collagen and structural proteins Transforming growth Factor (ie, alpha, beta)Regulation of cell

**Transforming growth factor (ie, alpha, beta)**
Regulation of cell proliferation, differentiation, and apoptosis
Induction of intimal thickening

**Epidermal growth factor**
Regulation of cell proliferation, differentiation, and survival

**Vascular endothelial growth factor**
Regulation of angiogenesis
Function of PRP

- Acceleration of endothelial, epithelial and epidermal regeneration
- Promotion of soft tissue healing
- Stimulation of angiogenesis
- Reversing the inhibition of wound healing caused by glucocorticoids
- Enhancement of collagen synthesis & the haemostatic response to injury
- Decrease of dermal scarring
Application of PRP

PRP therapy is one of state-of-the-art treatments available which is based on the healing power of a patient’s own platelets which contain growth promoting qualities.
Pain Clinic

**Shoulder Injuries**
- Rotator cuff tendinitis and partial tears
- Ant. & Post. band of IGHL
- ACJ, SCJ and C-C ligament
- SLAP lesion

**Elbow**
- Lateral epicondylitis
- Medial epicondylitis

**Back & Hip Injuries**
- Facet joint arthritis
- Sacroiliac joint pain
- Hip girdle muscle pain
- Hamstring tendonitis

**Wrist & Hand**
- Ligament sprains
- TFCC

**Knee**
- Patellar tendonitis
- Meniscus
- Ligament (MCL, LCL, ACL, PCL)
- Cartilage defects

**Ankle & Foot**
- Plantar Fasciitis
- Achilles tendonitis
- Ankle sprains
Aesthetic Clinic, etc.

- Hair Loss
- Wrinkles
  - Forehead
  - Eye
  - Under Eye
  - Malar and Cheek area
  - Nasolabial folds
  - Perioral zones
- Dark circles
- Acne marks, Scars
- Loose skin, Skin tone
Structure of **SW-PRP**

SW-PRP has been devised to extract PRP for pain and cell regeneration treatments.
How to **USE**

01. **Extract the blood into the syringe**
   (Please follow the 3 way valve direction presented on the above image.)

02. **Inject the blood in the syringe to the device**
   (Please follow the 3 way valve direction presented on the above image.)

03. **Centrifugation at first time**
    for the separation

04. **Turn the Red Blood Cell chamber cap**
    to adjust RBC level till the red line

05. **Close RBC locking bar**

06. **Centrifugation at the second time**
    for the concentration of the PRP

07. **Extract plasma at the plasma extraction point**

08. **Extract PRP at the PRP extraction point**
Advantages of **SW-PRP**

### One tube system
- Most of other PRP devices consist of two tubes to extract PRP. While blood is transferring to the other tube, it may be exposed in the air and contaminated. On the other hand, SW-PRP consists of one tube which is no need for blood to be transferred to other tube.

### One step process
- It is one step process to inject the extracted blood from a patient to the device.

### Easy use
- While most of other PRP devices require syringes with needles to inject the blood into device and extract PRP from the device, SW-PRP does not require a syringe with needles thanks to two built-in pathways for extraction of PRP & Plasma.
Advantages of SW-PRP

▶ One tube system
  • Most of other PRP devices consist of two tubes to extract PRP. While blood is transferring to the other tube, it may be exposed in the air and contaminated. On the other hand, SW-PRP consists of one tube which is no need for blood to be transferred to other tube.

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- **Easy use**
  - While most of other PRP devices require syringes with needles to inject the blood in to device and extract PRP from the device, SW-PRP does not require a syringe with needles thanks to two built-in path ways for extraction of PRP & Plasma.
Our specialty in the catheter technology has allowed us to be dedicated to VCF (Vertebral Compression Fracture) by developing & commercializing the Balloon Kyphoplasty System with our own brand name of SPASY to both domestic & overseas markets as of May 2009. We are proud of the brand value “SPASY” available now in the world wide as well as the domestic market.

Our catheter technology has also brought the opportunity to be dedicated to pain management products by developing & commercializing St.Reed & St.Cox as of October 2010.

We continue to research & develop to apply all our expertise on disposable products focusing on worldwide patients to have well being lives.

Our final goal is to be the axis of the good for our customers, employees and business collaborative partners. For that, we always try to give them full trust and to be harmonized with all around people.
Quality has never been negotiated by anybody and been at the core of Seawon Meditech. Our management team gives our QRM team the full supports to set up quality procedures in all research & business activities which must be operated by a state-of-the art quality system.

We do not have any doubt about that our QRM team with extensive experience from the international medical device field has been in full commitment for this mission.

The quality system within Seawon Meditech complies with the international standard ISO13485:2003 “Medical devices” – Quality management systems.
Company INFORMATION

Overview | Quality | Organization | Contact Us

CEO & Founder

Quality Management Representative

Company INFORMATION

Seawon Meditech Co., Ltd.

- **Address**: 409, Sihwa Hightech, Industrial Complex,#1234-7, Jeongwang-dong, Shiheung-si, Kyunggi-do, 429-848, South Korea

- **Phone**: +82 (0)31 8041 3388
- **Fax**: +82 (0)31 8041 3390
- **Mail**: marketing@seawonmt.com
- **Web**: www.seawonmt.com

Contact Us
Report & study of PRP

Reference

2. http://ajs.sagepub.com/content/34/11/1774.short
Video of SW-PRP
VEELER

Video Guided Catheter

Diagnosis and surgical procedure in the epidural space
Minimally invasive
Rapid recovery time
Video Guided Catheter for back pain relief

The Video Guided Catheter has been designed to allow the delivery of pain medication precisely within the lower spinal column. Appropriate for patients with chronic back pain not responsive to conservative treatment.

**Indications**

A. Chronic Back Pain  
B. Post- Laminectomy Syndrome  
C. Spinal Stenosis  
D. Herniated Nucleus Pulposus

**Benefits**

- Minimize impact on patient’s musculoskeletal structure  
- Deliver pain treatment to the exact point of pain  
- Diagnose conditions inside the spinal column

**Feature**

- Lightweight, ergonomic design  
- Catheter outer diameter is 3mm  
- Soft,atraumatic tip  
- Radiopaque shaft

- Dual working channels  
- Dual infusion ports  
- Direct visualization via endoscope  
- 2-way steering

**Ordering Information**

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