Sniper Product Family

The Sniper is compatible with conventional diagnostic catheters, guidewires, and embolic agents allowing physicians to experience the Sniper’s high performance with no additional accessories.

**Designed for arterial embolization procedures such as:**
- Transarterial Embolization (TAE)
- Transarterial Chemoembolization (TACE)
- Radioembolization (Y-90)
- Arteriovenous Malformation (AVM)
- Prostate Artery Embolization (PAE)
- Gastrointestinal Bleeds
- Renal Angiomyolipoma (AML)
- Uterine Fibroid Embolization (UFE)

**Specifications**

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Working Length</th>
<th>Dead Space Volume</th>
<th>Tip</th>
<th>Outer Diameter</th>
<th>Inner Diameter</th>
<th>Balloon Diameter</th>
<th>Guidewire Injection Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBC0629-STR-110</td>
<td>110 cm</td>
<td>0.32 ml</td>
<td>Straight tip</td>
<td>2.9F/0.038&quot;</td>
<td>0.020&quot;/0.5 mm</td>
<td>Up to 6 mm</td>
<td>0.014&quot; or 0.016&quot;</td>
</tr>
<tr>
<td>SBC0629-STR-130</td>
<td>130 cm</td>
<td>0.36 ml</td>
<td>Straight tip</td>
<td>2.9F/0.038&quot;</td>
<td>0.020&quot;/0.5 mm</td>
<td>Up to 6 mm</td>
<td>0.014&quot; or 0.016&quot;</td>
</tr>
<tr>
<td>SBC0629-STR-150</td>
<td>150 cm</td>
<td>0.41 ml</td>
<td>Straight tip</td>
<td>2.9F/0.038&quot;</td>
<td>0.020&quot;/0.5 mm</td>
<td>Up to 6 mm</td>
<td>0.014&quot; or 0.016&quot;</td>
</tr>
<tr>
<td>SBC0629-KTP-110</td>
<td>110 cm</td>
<td>0.32 ml</td>
<td>K™ tip</td>
<td>2.2F/0.029&quot;</td>
<td>0.014&quot;/0.5 mm</td>
<td>Up to 6 mm</td>
<td>0.014&quot; or 0.016&quot;</td>
</tr>
<tr>
<td>SBC0629-KTP-130</td>
<td>130 cm</td>
<td>0.36 ml</td>
<td>K™ tip</td>
<td>2.2F/0.029&quot;</td>
<td>0.014&quot;/0.5 mm</td>
<td>Up to 6 mm</td>
<td>0.014&quot; or 0.016&quot;</td>
</tr>
<tr>
<td>SBC0629-KTP-150</td>
<td>150 cm</td>
<td>0.41 ml</td>
<td>K™ tip</td>
<td>2.2F/0.029&quot;</td>
<td>0.014&quot;/0.5 mm</td>
<td>Up to 6 mm</td>
<td>0.014&quot; or 0.016&quot;</td>
</tr>
</tbody>
</table>

**Indications for use**
Sniper balloon occlusion microcatheter is intended for use in the blood vessels of the peripheral vasculature where temporary occlusion is desired and offers a vessel selective technique of temporary occlusion for selectively stopping or controlling blood flow. The Sniper balloon occlusion microcatheter is also intended to aid in the delivery of diagnostic agents such as contrast media and therapeutic agents into the peripheral vasculature.

**Contraindications**

**References**

*See Sniper Chemical Compatibility Statement Letter MK-0351 at http://embolx.com/products/. Embolx does not make any claims for information purposes only.*
Liver Arterial Network (~60 mmHg)

These examples are based on liver tumors, but this therapy may be applied to other organs and tumor locations.

Tumor (25 mmHg)
Flow redirected towards tumor

Occluded Supply Artery (~60 mmHg)
Sniper Supply Artery (~100 mmHg)

Low pressure causes flow redistribution towards the lowest pressure zone (tumor) at a low flow rate allowing for complete tumor fill.

Low Pressure Delivery
(Subselective or Lobar)

High pressure forces the flow into the tumor causing the tumor to fill completely and overflow into the portal vein without reflux.

High Pressure Delivery
(Superselective or Segmental)

Clinical Summary
Conventional vs. Balloon Occluded Transcatheter Arterial Chemoembolization (TACE)*.

<table>
<thead>
<tr>
<th>Lipiodol® Filling</th>
<th>Complete Tumor Response</th>
<th>Survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increases Lipiodol filling</td>
<td>Increases complete tumor response by 41%</td>
<td>Increases 5-year survival by 53%</td>
</tr>
</tbody>
</table>

*Literature review of known balloon occlusion microcatheters to date.

*Data on File.

Sniper Balloon Occlusion Microcatheter

Designing Performance.

Intricate technical design of the Sniper® Balloon Occlusion Microcatheter allows for easy navigation through small complex vascular structures providing enhanced reach to distal target sites.

Atraumatic Tip
All tip shapes are tapered for smooth entry and have radiopaque material for easy visualization.

Occlusion Balloon
Silicone balloon fits in a low profile pocket and remains flush after repeated use.

Flexible Distal Shaft
The combination of pliable material, steel braiding and hydrophilic coating maximizes trackability.

Rigid Proximal Shaft
The steel braids and robust materials allow for optimal pushability.

K™-tip
Responsive one to one torqueability for navigating complex anatomy.

Thin Wall Technology
Exceptionally thin wall material, capable of holding 900 psi, allows for dual lumens and a larger inner lumen without compromising catheter size.

Occlusion Balloon
Silicone balloon fits in a low profile pocket and remains flush after repeated use.

Sniper Balloon Occlusion Microcatheter

Delivering Precision.

The Sniper’s balloon occludes the vessel to alter blood flow-dynamics using pressure-directed embolization. This increases therapeutic agent delivery into target areas while protecting surrounding healthy tissue.1,2

Conventional vs. Balloon Occluded Transcatheter Arterial Chemoembolization (TACE)*.

Lipiodol® Filling
Increases Lipiodol filling 2-6X

Complete Tumor Response
Increases complete tumor response by 41%

Survival
Increases 5-year survival by 53%
Liver Arterial Network (~60 mmHg)

These examples are based on liver tumors, but this therapy may be applied to other organs and tumor locations.

Tumor (~25 mmHg)

Flow redirected towards tumor

Occluded Supply Artery (~60 mmHg)

Sniper Supply Artery (~100 mmHg)

Low pressure causes flow redistribution towards the lowest pressure zone (tumor) at a low flow rate allowing for complete tumor fill.

Low Pressure Delivery
(Subselective or Lobar)

High pressure forces the flow into the tumor causing the tumor to fill completely and overflow into the portal vein without reflux.

High Pressure Delivery
(Superselective or Segmental)

Conventional vs. Balloon Occluded Transcatheter Arterial Chemoembolization (TACE)∗.

(Two studies totaling 142 patients)3,4

(Meta-analysis of three studies totaling 221 patients)5,6,7,8

(One study with 62 patients)7

Clinical Summary

Conventional vs. Balloon Occluded Transcatheter Arterial Chemoembolization (TACE)∗.

Lipiodol® Filling

Complete Tumor Response

Survival

Increases Lipiodol filling by 2-6X

Increases complete tumor response by 41%

Increases 5-year survival by 53%

* Data on File.

Sniper® Balloon Occlusion Microcatheter

Intricate technical design of the Sniper® Balloon Occlusion Microcatheter allows for easy navigation through small complex vascular structures providing enhanced reach to distal target sites.

Flexible Distal Shaft

The combination of pliable material, steel braiding and hydrophilic coating maximizes trackability.

Rigid Proximal Shaft

The steel braids and robust materials allow for optimal pushability.

Occlusion Balloon

Silicone balloon fits in a low profile pocket and remains flush after repeated use.

Atraumatic Tip

All tip shapes are tapered for smooth entry and have radiopaque material for easy visualization.

K-tip

Responsive one to one torqueability for navigating complex anatomy.

Thin Wall Technology

Exceptionally thin wall material, capable of holding 900 psi, allows for dual lumens and a larger inner lumen without compromising catheter size.

Occlusion Balloon

Sniper balloon fits in a low profile pocket and remains flush after repeated use.

The Sniper’s balloon occludes the vessel to alter blood flow-dynamics using pressure-directed embolization. This increases therapeutic agent delivery into target areas while protecting surrounding healthy tissue.1,2

Designing Performance.

Delivering Precision.
Transarterial Embolization (TAE)
Transarterial Chemoembolization (TACE)
Radioembolization (Y-90)
Arteriovenous Malformation (AVM)
Prostate Artery Embolization (PAE)
Gastrointestinal Bleeds
Renal Angiomyolipoma (AML)
Uterine Fibroid Embolization (UFE)

Specifications

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Working Length</th>
<th>Dead Space Volume</th>
<th>Tip</th>
<th>Outer Diameter</th>
<th>Inner Diameter</th>
<th>Balloon Diameter</th>
<th>Guidewire Injection Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBC0629-STR-110</td>
<td>110 cm</td>
<td>0.32 ml</td>
<td>Straight</td>
<td>0.020&quot;/0.5 mm</td>
<td>0.002&quot;/0.038&quot;*</td>
<td>K™-tip</td>
<td></td>
</tr>
<tr>
<td>SBC0629-STR-130</td>
<td>130 cm</td>
<td>0.36 ml</td>
<td>Straight</td>
<td>0.020&quot;/0.5 mm</td>
<td>0.002&quot;/0.038&quot;*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SBC0629-STR-150</td>
<td>150 cm</td>
<td>0.41 ml</td>
<td>Straight</td>
<td>0.020&quot;/0.5 mm</td>
<td>0.002&quot;/0.038&quot;*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SBC0629-STR-110</td>
<td>110 cm</td>
<td>0.32 ml</td>
<td>Distal</td>
<td>0.020&quot;/0.5 mm</td>
<td>0.002&quot;/0.038&quot;*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INDICATIONS FOR USE
Sniper balloon occlusion microcatheter is intended for use in the blood vessels of the peripheral vasculature where temporary occlusion is desired and offers a vessel selectivity technique of temporary vascular occlusion for selectively stopping or controlling blood flow. The Sniper balloon occlusion microcatheter is also intended to assist in the delivery of diagnostic agents such as contrast media and therapeutic agents into the peripheral vasculature.

CONTRAINDICATIONS

REFERENCES

©2019 Embolx, Inc. All rights reserved. Sniper is a registered trademark of Embolx, Inc.

MK-0315 revG