# Targeted and predictable embolisation



\*Size restrictions apply to indication Please see back page



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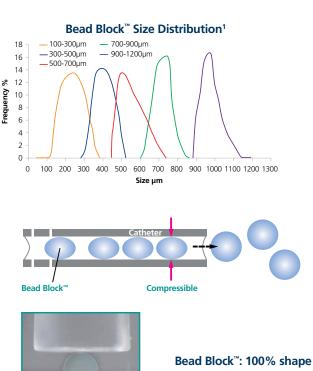
# The unique structure of Bead Block<sup>™</sup> – PVA hydrogel crosslinked with acrylic polymer - ensures smooth delivery and targeted, effective embolisation

### **Accurate Sizing**

Bead Block<sup>™</sup> is precisely calibrated to offer reliable and consistent size distribution and predictable embolisation.

### Compressibility with Rapid Shape Recovery

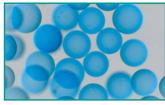
- Bead Block<sup>™</sup> can be temporarily deformed to facilitate smooth passage through the catheter lumen.<sup>2</sup>
- Bead Block<sup>™</sup> rapidly returns to its spherical shape once delivered from the catheter, facilitating travel to the target vessel and effective embolisation at the endpoint.<sup>2</sup>



recovery at 0.16 seconds from 70% compression

### **Spherical Integrity**

• Studies show that, unlike other embolics, Bead Block<sup>™</sup> does not aggregate or fragment, either of which may compromise the embolisation endpoint.<sup>3</sup>





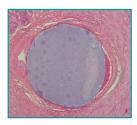
Bead Block<sup>™</sup> after 20 transfers<sup>\*</sup>: High resistance to fragmentation

\*One transfer = entire contents of syringe 1 pushed through to syringe 2



### Bilbao et al demonstrated that:

- Bead Block<sup>™</sup> tends to locate in vessels of small size (eg arciform arteries) and appear individualised or in formed rows.<sup>3</sup>
- Most Bead Block<sup>™</sup> specimens adapted perfectly to the vascular wall, completely occluding the vessel lumen.<sup>3</sup>
- Other bland embolic agents either did not adapt to the walls of the artery or demonstrated high rates of variability in the degree to which they adapted.<sup>3</sup>



Accurately sized Bead Block<sup>™</sup> within targeted vessel provides a true mechanical embolisation<sup>4</sup>

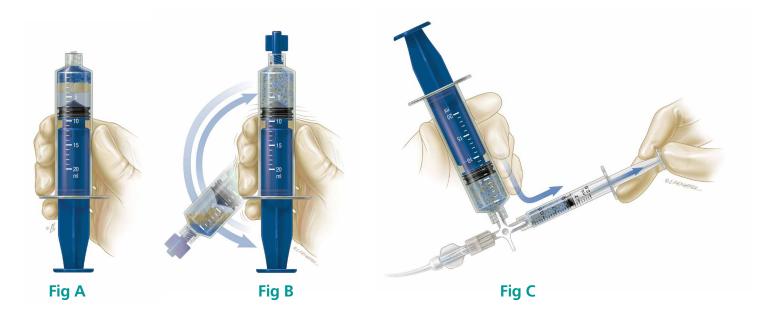


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# **Bead Block**<sup>™</sup> preparation

- Draw up contrast medium directly into the Bead Block<sup>™</sup> pre-filled syringe.
  To obtain an even suspension, initially use 50:50 contrast to Bead Block<sup>™</sup> volume.
  If Bead Block<sup>™</sup> sinks, add more contrast. If Bead Block<sup>™</sup> floats, add more saline. (Fig A)
- **2** Remove all air from the syringe.
- Gently invert the 20ml syringe several times to evenly suspend the Bead Block<sup>™</sup>/contrast solution.
  Do not use a shaking motion. (Fig B)
- 4 Wait to allow Bead Block<sup>™</sup> to suspend properly.
- 5 Attach the 20ml syringe to the side port of the luer-lock 3-way stopcock. Attach the injection syringe (1-5ml according to preference) to the second port. Attach the remaining port of the stopcock to the delivery catheter. (Fig C)

### Ensure all air is purged from the system prior to injection.



Do not pass the content vigorously between syringes when obtaining suspension/re-suspension. Exercise conservative judgment in determining the embolisation endpoint.

## Bead Block<sup>™</sup> indication, contrast media and suspension

Size Range µm	Indication	Omnipaque™ 300	lsovue®-300	Optiray <sup>®</sup> 300	Visipaque <sup>™</sup> 320	
100 to 300	PAE*, Hypervascular Tumours	5.0 ml	5.0 ml	5.0 ml	5.0 ml	
		1 min	1 min	1 min	1 min	
300 to 500	PAE*, Hypervascular Tumours	5.0 ml	5.0 ml	5.0 ml	5.0 ml	
		2 min	1 min	1 min	2 min	
500 to 700	UFE*, Hypervascular Tumours	5.0 ml	5.0 ml	5.0 ml	4.0 ml	
		3 min	2 min	2 min	5 min	
700 to 900	UFE*, Hypervascular Tumours	5.0 ml	5.0 ml	5.0 ml	2.0 ml	
		5 min	4 min	4 min	5 min	
900 to 1200	UFE*, Hypervascular Tumours	2.0 ml	2.0 ml	2.0 ml	2.0 ml	
		3 min	3 min	4 min	6 min	
Kau		Initial volume of contrast medium to add to achieve suspension for at least 45 seconds				
Кеу		Approximate time to achieve suspension, inverting several times every 20 seconds				

### **Bead Block<sup>™</sup> catheter compatibility for easy delivery**



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#### **Bead Block<sup>™</sup> Ordering Information**

2ml Bead Block<sup>™</sup> is suspended in 5ml physiological buffered saline in 20ml syringe and is packed singly.

Product Codes			Indication			
Bead Block <sup>™</sup> Size	BTG Product Code	Label Colour	Hypervascular Tumours and Arteriovenous malformations	Uterine Fibroid Embolisation (UFE)*	Prostatic Artery Embolisation (PAE) for BPH*	
Bead Block™ 100-300µm	EB2S103	Yellow	✓ Yes	X No	✓ Yes	
Bead Block <sup>™</sup> 300-500µm	EB2S305	Blue	✓ Yes	X No	✓ Yes	
Bead Block <sup>™</sup> 500-700µm	EB2S507	Red	√ Yes	√ Yes	X No	
Bead Block <sup>™</sup> 700-900µm	EB2S709	Green	✓ Yes	✓ Yes	X No	
Bead Block <sup>™</sup> 900-1200µm	EB2S912	Purple	✓ Yes	√ Yes	X No	

Our BTG Customer Services Team: customer.services@btgplc.com						
Austria	Tel. +43-720880739 Netherlands		Tel. +31-202410932			
Belgium	Tel. +32-28087916	Portugal	Tel. +351-308802698			
France	Tel. +33-184884056	Spain	Tel. +34-911981738			
Germany	Tel. +49-3030809275	Switzerland	Tel. +41-315280675			
Ireland	Tel. +353-15134139	UK	Tel. +44-2033187881			
Italy	Tel. +39-0694805067	Other countries: Please visit www.btg-im.com for details of your local distributor				

#### References

- Biocompatibles a BTG International group company, data on file: Ref: FAR-ES-0042.
  Lewis A et al. In Vitro Evaluation of Microspherical Embolization Agents. J Mater Sci: Mater Med 17 (2006): 1193-204.
- Bilbao, JI et al. Comparative Study of Four Different Spherical Embolic Particles in an Animal Model: A Morphologic and Histologic Evaluation. J Vasc Intervent Radiol 19 (2008) 1625-1638.
- 4. Photograph of Bead Block in an artery courtesy of JP Pelage, PhD, Hôpital Lariboisière, Paris, France.

#### Important Information Indications:

Bead Block is intended to be used for the embolisation of hypervascular tumours, including uterine fibroids and arteriovenous malformations (AVMs). Bead Block is also intended to be used for the treatment of symptomatic Benign Prostatic Hyperplasia (BPH).

#### Potential Complications:

- Undesirable reflux or passage of Bead Block into normal arteries adjacent to the targeted lesion or through the lesion into other arteries or arterial beds.
- 2
- 3. 4.
- Non-target embolization. Pulmonary embolization. Ischaemia at an undesirable location.
- Capillary bed saturation and tissue damage. Ischaemic stroke or ischaemic infarction. Vessel or lesion rupture and haemorrhage. 5
- 6. 7.
- Neurological deficits including cranial nerve palsies.
  Vasospasm.
  Death.

- 11. Recanalisation.
- 12. 13. Foreign body reactions necessitating medical intervention. Infection necessitating medical intervention.
- 14. Clot formation at the tip of the catheter and subsequent dislodgement.

#### UFE-Specific Potential Complications:

- Potential post-procedure complications include: 1. Abdominal pain
- Discomfort 2.
- 3.
- Fever Nausea 4. 5.
- Constipation
- Premature ovarian failure (ie menopause) Amenorrhea Infection of the pelvic region 6. 7. 8.
- 9 Uterine/ovarian necrosis
- Philebitis
  Deep vein thrombosis with or without pulmonary embolism
- Vaginal discharge
  Tissue passage, fibroid sloughing, or fibroid expulsion post UFE
  Post-UFE intervention to remove necrotic fibroid tissue

- Vagal reaction
  Transient hypertensive episode
  Hysterectomy

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PAE-Specific Potential Complications:

Transient polaquiuria. Transient hematuria.

Transient urinary retention.

2

3.

Potential post-procedure complications include: 1. Post procedural abdominal pain.



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