Medtronic Engineering the extraordinary Endurant™ II/IIs stent graft system

For use by physician only	Date of CT study:		Patient ID:		Patient DOB:	/	/
	CT slice thickness:	CT slice thickness:		Implanting physician:			
			Evaluation date:		Procedure date:		
D3 L2 + D4R Please accord	L1 L2 Length (mm) L3 R = consider additional length ing to the vessel tortucasity M Table pos. D4L	SMA patent? Yes No Lowest renal artery Righ Disease Progression Risk Pro Short (L1) Wide (D1a) Conical (% change D1/L1) Proximal neck thrombus Nil Mild No Proximal neck calcification Nil Mild Moderate Consider EndoAnchors? Yes No Lumbar patent? Yes IMA patent? Yes Nil Mild Mild Moderate Left iliac calcification Nil Nil Mild Nil Mild Mild Moderate Left iliac calcification Nil Mild Mild Moderate Coil hypo Right	t 🗆 Left ximal neck: A ngled (A1) Severe Severe No Severe Severe	Please reference appropriate p indications, warnings, precaution			

D4R				-	Please co according	nsider additio g to the vesse	onal length I tortuosity
D5R			`)	\geq	DIA	∕l Table	pos.
D6R					-		D4L
		L3R			-		D5L
		L3L		M.			D6L
				72	Ļ	\supset	
D7R					,		D7L

Qty	Product code	Qty	Product code

Endurant [™] II/IIs stent graft sizing guidelines						
Proximal aortic diameter (mm)	Proximal stent graft size					
Standard EVAR [†]						
19-20	23					
21-22	25					
23-25	28					
26-28	32					
29-32	36					
Distal iliac diameter (mm)	Distal stent graft size [‡]					
8-9	10					
10-11	13					
12-14	16					
15-18	20					
19-22	24					
23-25	28					

Proposed bifur side □ Right □ Left

[†]EVAR: Bifurs, Cuff, AUI, Tube configuration [‡]Limb, Iliac Extension configuration Comments

CAUTION: This report is based on information and images provided by the physician to Medtronic. This report is intended to be a resource to support the physician in his/her determination of proper case selection, device sizing, and procedure planning, and is in no way intended to constitute medical advice or in any way replace the independent medical judgment of a trained and licensed physician with respect to any patient needs or circumstances. The physician must conduct his/her own measurements and make his/her own medical judgments based on all of the patient's clinical and diagnostic records and images. The physician is solely responsible for all decisions and any medical judgments relating to patient diagnosis and treatment, including case selection and sizing of the device.

Please see the complete *Instructions for Use* for all product indications, contraindications, precautions, warnings, potential adverse events, and sizing guidelines.

Mectronic Engineering the extraordinary

Product codes

Endurant[™] II stent bifurcations

		Produc	t code			
	Proximal graft diameter (mm)	Distal graft diameter (mm)	Distal design	Total covered length (mm)	Delivery system	Catheter outer diameter (Fr)
ETBF	23	13	С	124	E	18
ETBF	23	13	С	145	E	18
ETBF	23	13	С	166	E	18
ETBF	23	16	С	124	E	18
ETBF	23	16	С	145	E	18
ETBF	23	16	С	166	E	18
ETBF	25	13	С	124	E	18
ETBF	25	13	С	145	E	18
ETBF	25	13	С	166	E	18
ETBF	25	16	С	124	E	18
ETBF	25	16	С	145	E	18
ETBF	25	16	С	166	E	18
ETBF	28	13	С	124	E	18
ETBF	28	13	С	145	E	18
ETBF	28	13	С	166	E	18
ETBF	28	16	С	124	E	18
ETBF	28	16	С	145	E	18
ETBF	28	16	С	166	E	18
ETBF	28	20	С	124	E	18
ETBF	28	20	С	145	E	18
ETBF	28	20	С	166	E	18
ETBF	32	16	С	124	E	20
ETBF	32	16	С	145	E	20
ETBF	32	16	С	166	E	20
ETBF	32	20	С	124	E	20
ETBF	32	20	С	145	E	20
ETBF	32	20	С	166	E	20
ETBF	36	16	С	145	E	20
ETBF	36	16	С	166	E	20
ETBF	36	20	С	145	E	20
ETBF	36	20	С	166	E	20

Endurant[™] IIs bifurcations

		Produc	tcode			
	Proximal graft diameter (mm)	Distal graft diameter (mm)	Distal design	Total covered length (mm)	Delivery system	Catheter outer diameter (Fr)
ESBF	23	14	С	103	E	18
ESBF	25	14	С	103	E	18
ESBF	28	14	С	103	E	18
ESBF	32	14	С	103	E	20
ESBF	36	14	С	103	E	20

Limbs[†]

		Produc	t code					
	Proximal graft diameter (mm)	Distal graft diameter (mm)	Distal design	Total covered length (mm)	Delivery system	outer	Total contralateral covered length with EII/EIIs bifurcated [‡]	covered length with Ells
ETLW	16	10	С	82	Е	14	132	152
ETLW	16	10	С	93	E	14	143	163
ETLW	16	10	С	124	E	14	174	174 - 194
ETLW	16	10	С	146	E	16	196	196 - 216
ETLW	16	10	С	156	E	16	206	206 - 226
ETLW	16	10	С	199	E	16	249	249 - 269
ETLW	16	13	С	82	E	14	132	152
ETLW	16	13	С	93	E	14	143	163
ETLW	16	13	С	124	E	14	174	174 - 194
ETLW	16	13	С	146	E	16	196	196 - 216
ETLW	16	13	С	156	E	16	206	206 - 226
ETLW	16	13	С	199	E	16	249	249 - 269
ETLW	16	16	С	82	E	14	132	132 - 152
ETLW	16	16	С	93	E	14	143	143 - 163
ETLW	16	16	С	124	E	14	174	174 - 194
ETLW	16	16	С	146	E	16	196	196 - 216
ETLW	16	16	С	156	E	16	206	206 - 226
ETLW	16	16	С	199	E	16	249	249 - 269
ETLW	16	20	С	82	E	16	132	152
ETLW	16	20	С	93	E	16	143	163
ETLW	16	20	С	124	E	16	174	174 - 194
ETLW	16	20	С	146	E	16	196	196 - 216
ETLW	16	20	С	156	E	16	206	206 - 226
ETLW	16	20	С	199	E	16	249	249 - 269
ETLW	16	24	С	82	E	16	132	152
ETLW	16	24	С	93	E	16	143	163
ETLW	16	24	С	124	E	16	174	174 - 194
ETLW	16	24	С	146	E	16	196	196 - 216
ETLW	16	24	С	156	E	16	206	206 - 226
ETLW	16	24	С	199	E	16	249	249 - 269
ETLW	16	28	С	82	E	16	132	152
ETLW	16	28	С	93	E	16	143	163
ETLW	16	28	С	124	E	16	174	174 - 194
ETLW	16	28	С	146	E	16	196	196 - 216
ETLW	16	28	С	156	E	16	206	206 - 226
ETLW	16	28	С	199	E	16	249	249 - 269

lliac extensions

	Proximal graft diameter (mm)	Distal graft diameter (mm)	Distal design	Total covered length (mm)	Delivery system	Catheter outer diameter (Fr)
ETEW	10	10	С	82	Е	14
ETEW	13	13	С	82	Е	14
ETEW	20	20	С	82	E	16
ETEW	24	24	С	82	E	16
ETEW	28	28	С	82	E	18

Aortic extensions

Product code							
	Proximal graft diameter (mm)	Distal graft diameter (mm)	Distal design	Total covered length (mm)	Delivery system	Catheter outer diameter (Fr)	
ETCF	23	23	С	49	E	18	
ETCF	25	25	С	49	E	18	
ETCF	28	28	С	49	E	18	
ETCF	32	32	С	49	E	20	
ETCF	36	36	С	49	E	20	
ETTF	23	23	С	70	E	18	
ETTF	25	25	С	70	E	18	
ETTF	28	28	С	70	E	18	
ETTF	32	32	С	70	E	20	
ETTF	36	36	С	70	E	20	

AUI

	Product code							
	Proximal graft diameter (mm)	Distal graft diameter (mm)	Distal design	Total covered length (mm)	Delivery system	Catheter outer diameter (Fr)		
ETUF	23	14	С	102	Е	18		
ETUF	25	14	С	102	E	18		
ETUF	28	14	С	102	E	18		
ETUF	32	14	С	102	E	20		
ETUF	36	14	С	102	E	20		

[†]The limb mates with the AUI stent graft on the ipsilateral side.

⁺These calculations assume the minimum 30 mm overlap between the bifurcated stent graft and the contralateral iliac limb per the Endurant[®] II stent graft system *Instructions for Use*. When using the 124 mm length bifurcated stent graft, subtract 10 mm from total contralateral covered length with bifurcated.

 $^{\rm sThe}$ 3-5 stent overlap is available only with select limbs. Please refer to the Instructions for Use for more information.



Indications

The Endurant[™] II/Endurant[™] IIs bifurcated stent grafts are indicated for the endovascular treatment of infrarenal abdominal aortic or aortoiliac aneurysms. They may be utilized in conjunction with the Heli-FX[™] EndoAnchor[™] system when augmented radial fixation and/or sealing is required; in particular, in the treatment of abdominal aortic aneurysms with short (≥ 4 mm and < 10 mm) infrarenal necks (see Neck length definition below). The Endurant II stent graft system aorto-uni-iliac (AUI) stent graft is indicated for the endovascular treatment of infrarenal abdominal aortic or a otoiliac aneurysms in patients whose anatomy does not allow the use of a bifurcated stent graft. The Endurant II/IIs stent graft system is indicated for use in patients with the following characteristics:

- Adequate iliac or femoral access that is compatible with vascular access techniques, devices, or accessories
- Proximal neck length of
- ≥ 10 mm; or
- ≥ 4 mm and < 10 mm when used in conjunction with the Heli-FX EndoAnchor system (bifurcated stent graft only)
 Note: Neck length is defined as the length over which the aortic diameter remains within 10% of the infrarenal diameter.
- Infrarenal neck angulation of $\leq 60^{\circ}$
- Aortic neck diameters with a range of 19 to 32 mm
- Distal fixation length(s) of $\geq 15 \text{ mm}$
- Iliac diameters with a range of 8 to 25 mm
- Morphology suitable for aneurysm repair

Contraindications

- The Endurant II/Endurant IIs stent graft system is contraindicated in:
- patients who have a condition that threatens to infect the graft
- patients with known sensitivities or allergies to the device materials When used with the Heli-FX EndoAnchor system, the Endurant II/IIs stent graft system is also contraindicated in:

• patients with known sensitivities to the EndoAnchor implant materials. For contraindications regarding ancillary devices used with the Endurant II/Endurant IIs stent graft system, refer to the *Instructions for Use* provided with the device.

Warnings and Precautions

- The long-term safety and effectiveness of the Endurant II/Endurant IIs stent graft system has not been established. All patients should be advised that endovascular treatment requires lifelong, regular follow-up to assess the health and the performance of the implanted endovascular stent graft. Patients with specific clinical findings (e.g., endoleaks, enlarging aneurysms, changes in the structure or position of the endovascular graft), or less than the recommended number of EndoAnchor implants when used in short proximal necks (≥ 4 mm and < 10 mm), should receive enhanced follow-up. Specific follow-up guidelines are described in the *Instructions for Use*.
- Patients experiencing reduced blood flow through the graft limb, aneurysm expansion, and persistent endoleaks may be required to undergo secondary interventions or surgical procedures.
- The Endurant II/Endurant IIs stent graft system is not recommended in patients unable to undergo or who will not be compliant with the necessary preoperative and postoperative imaging and implantation procedures as described in the *Instructions for Use*.
- Renal complications may occur: 1) From an excess use of contrast agents.
 2) As a result of emboli or a misplaced stent graft. The radiopaque marker along the edge of the stent graft should be aligned immediately below the lower-most renal arterial origin.
- Studies indicate that the danger of micro-embolization increases with increased procedure duration.
- The safety and effectiveness of the Endurant II/Endurant IIs stent graft system has not been evaluated in some patient populations. Please refer to the product *Instructions for Use* for details.

MRI Safety and Compatibility

Non-clinical testing has demonstrated that the Endurant II/Endurant IIs stent graft is MR Conditional. It can be scanned safely in both 1.5T & 3.0T MR systems under certain conditions as described in the product *Instructions for Use*. For additional MRI safety information, please refer to the product *Instructions for Use*.

Adverse Events

Potential adverse events include (arranged in alphabetical order): amputation; anesthetic complications and subsequent attendant problems (e.g., aspiration), aneurysm enlargement; aneurysm rupture and death; aortic damage, including perforation, dissection, bleeding, rupture and death; arterial or venous thrombosis and/or pseudoaneurysm; arteriovenous fistula; bleeding, hematoma or coagulopathy; bowel complications (e.g., ileus, transient ischemia, infarction, necrosis); cardiac complications and subsequent attendant problems (e.g., arrhythmia, myocardial infarction, congestive heart failure, hypotension, hypertension); claudication (e.g., buttock, lower limb); death; edema; EndoAnchor system (for infrarenal EVAR procedures using the Heli-FX EndoAnchor system): partial deployment, inaccurate deployment, fracture, dislodgement, embolization, stent graft damage, modelling balloon damage); embolization (micro and macro) with transient or permanent ischemia or infarction; endoleak; fever and localized inflammation; genitourinary complications and subsequent attendant problems (e.g., ischemia, erosion, femoral-femoral artery thrombosis, fistula, incontinence, hematuria, infection); hepatic failure; impotence; infection of the aneurysm, device access site, including abscess formation, transient fever and pain; lymphatic complications and subsequent attendant problems (e.g., lymph fistula); neurologic local or systemic complications and subsequent attendant problems (e.g., confusion, stroke, transient ischemic attack, paraplegia, paraparesis, paralysis); occlusion of device or native vessel; pulmonary complications and subsequent attendant problems; renal complications and subsequent attendant problems (e.g., artery occlusion, contrast toxicity, insufficiency, failure); stent graft: improper component placement; incomplete component deployment; component migration; suture break; occlusion; infection; stent fracture; graft twisting and/or kinking; insertion and removal difficulties; graft material wear; dilatation; erosion; puncture and perigraft flow; surgical conversion to open repair; vascular access site complications, including infection, pain, hematoma, pseudoaneurysm, arteriovenous fistula, dissection; vascular spasm or vascular trauma (e.g., iliofemoral vessel dissection, bleeding, rupture, death); vessel damage; wound complications and subsequent attendant problems (e.g., dehiscence, infection, hematoma, seroma, cellulitis) Please reference product *Instructions for Use* for more information regarding indications, warnings, precautions, contraindications and adverse events.

Caution: Federal (USA) law restricts this device to sale by or on the order of a physician.

For applicable products, consult *instructions for use* on www.medtronic.com/manuals. Manuals can be viewed using a current version of any major internet browser. For best results, use Adobe Acrobat® Reader with the browser.

Medtronic

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