

THE SVS/ESVS/NICE/ACC/AHA GUIDELINES ON AAAs: AGREEMENTS, CONFLICTING RECOMMENDATIONS, AND OMISSIONS

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No Conflict of Interest

2018: Society for Vascular Surgery practice guidelines on the care of patients with an abdominal aortic aneurysm.

2020: NICE guideline NG155: Abdominal aortic aneurysms: diagnosis and management.

2022: ACC/AHA Guideline for the Diagnosis and Management of Aortic Disease: A Report of the American Heart Association/American College of Cardiology Joint Committee on Clinical Practice Guidelines.

2024: European Society for Vascular Surgery (ESVS) 2024 Clinical Practice Guidelines on the Management of Abdominal Aorto-Iliac Artery Aneurysms.

SOCIETY FOR VASCULAR SURGERY® DOCUMENT

AAA SCREENING

The Society for Vascular Surgery practice guidelines on the care of patients with an abdominal aortic aneurysm.

We recommend a one-time ultrasound screening for AAAs in men or women 65 to 75 years of age with a history of tobacco use.

Level of recommendation	1 (Strong)
Quality of evidence	A (High)

ESVS practice guideline document

AAA SCREENING

European Society for Vascular Surgery (ESVS) 2024 Clinical Practice Guidelines on the Management of Abdominal Aorto-Iliac Artery Aneurysms.

Recommendation 11 Changed

Ultrasound screening for the early detection of abdominal aortic aneurysm is recommended in high risk populations* to reduce death from aneurysm rupture.

Class	Level	References	ToE
I	A	Lederle et al. (2000), ¹⁰	...

ESVS practice guideline document

AAA SCREENING

European Society for Vascular Surgery (ESVS) 2024 Clinical Practice Guidelines on the Management of Abdominal Aorto-Iliac Artery Aneurysms.

Recommendation 11 Changed

Ultrasound screening for the early detection of abdominal aortic aneurysm is recommended in high risk populations* to reduce death from aneurysm rupture.

Class	Level	References	ToE
I	A	Lederle et al. (2000), ¹⁰	...

Table 6. Potential for abdominal aortic aneurysm screening in different risk populations.

Risk group	Potential for screening	
	Men	Women
65 year old	+	—
65 year old former or current smoker	++	—
Non-white ethnicity	—	—
First degree relative with abdominal aortic aneurysm	+++	+++
Other peripheral aneurysms	+++	+++
Cardiovascular disease	—	—
Organ transplanted	++	++

+ indicates different degrees of suitability for screening and — indicates not suitable for screening.

SOCIETY FOR VASCULAR SURGERY™ DOCUMENT

DECISION TO TREAT AAA

The Society for Vascular Surgery practice guidelines on the care of patients with an abdominal aortic aneurysm

We recommend elective repair for the patient at low or acceptable surgical risk with a fusiform AAA that is ≥ 5.5 cm.

Level of recommendation	1 (Strong)
Quality of evidence	A (High)

SOCIETY FOR VASCULAR SURGERY™ DOCUMENT

DECISION TO TREAT AAA

The Society for Vascular Surgery practice guidelines on the care of patients with an abdominal aortic aneurysm

We recommend elective repair for the patient at low or acceptable surgical risk with a fusiform AAA that is ≥ 5.5 cm.

Level of recommendation	1 (Strong)
Quality of evidence	A (High)

We suggest repair in women with AAA between 5.0 cm and 5.4 cm in maximum diameter.

Level of recommendation	2 (Weak)
Quality of evidence	B (Moderate)

CLINICAL PRACTICE GUIDELINE DOCUMENT

DECISION TO TREAT AAA

European Society for Vascular Surgery (ESVS) 2024 Clinical Practice Guidelines on the Management of Abdominal Aorto-Iliac Artery Aneurysms

Recommendation 20

Men with an asymptomatic abdominal aortic aneurysm < 55 mm are not recommended for elective repair.

Class	Level	References	ToE
III	A	Lederle et al. (2002), ²³⁸ Powell et al. (2007), ²³⁹ Cao et al. (2011), ²⁴⁰ Ouriel et al. (2010) ²⁴¹	

Recommendation 21

Women with an asymptomatic abdominal aortic aneurysm < 50 mm are not recommended for elective repair.

Class	Level	References	ToE
III	C	Consensus	

CLINICAL PRACTICE GUIDELINE DOCUMENT

DECISION TO TREAT AAA

2022 ACC/AHA Guidelines for the Diagnosis and Management of Aortic Disease: A Report of the American Heart Association/American College of Cardiology Joint Committee on Clinical Practice Guidelines

Recommendation for Replacement of Primary (Nondissected) Aneurysms of the Aortic Arch, Descending, and Abdominal Aorta in Patients With Marfan Syndrome

COB	LDE	Recommendation
2a	C-EO	1. In patients with Marfan syndrome and a nondissected aneurysm of the aortic arch, descending thoracic aorta, or abdominal aorta of ≥ 5.5 cm, surgical intervention to replace the aneurysmal segment is reasonable.

Recommendations for Replacement of the Aorta in Patients With Loeys-Dietz Syndrome

COB	LDE	Recommendations
2b	C-EO	5. In patients with Loeys-Dietz syndrome attributable to a pathogenic variant in TGFBR1, TGFBR2, or SMAD3, surgery to replace the intact aortic arch, descending aorta, or abdominal aorta at a diameter of ≥ 4.5 cm may be considered. NOT FOR CLINICAL GUIDANCE variant patient ages, aortic growth rate, family history, presence of high-risk features (Table 11), and surgical risk informing the decision.

SOCIETY FOR VASCULAR SURGERY™ DOCUMENT

WHO SHOULD REPAIR AAA?

The Society for Vascular Surgery practice guidelines on the care of patients with an abdominal aortic aneurysm

Peroperative outcomes of open AAA repair. We suggest that elective OSR for AAA be performed at centers with an annual volume of at least 10 open aortic operations of any type and a documented peroperative mortality of 5% or less.

Level of recommendation	2 (Weak)
Quality of evidence	C (Low)

Peroperative outcomes of elective EVAR. We suggest that elective EVAR be performed at centers with a volume of at least 10 EVAR cases each year and a documented peroperative mortality and conversion rate to OSR of 2% or less.

Level of recommendation	2 (Weak)
Quality of evidence	C (Low)

CLINICAL PRACTICE GUIDELINE DOCUMENT

WHO SHOULD REPAIR AAA?

European Society for Vascular Surgery (ESVS) 2024 Clinical Practice Guidelines on the Management of Abdominal Aorto-Iliac Artery Aneurysms

Recommendation 3

Centres performing abdominal aortic aneurysm repair should not have a yearly total caseload of < 30, and not less than 15 each by open and endovascular methods.

Class	Level	References	ToE
III	B	Landon et al. (2010), ¹⁵⁴	

Recommendation 4

Centres treating complex abdominal aortic aneurysms should not have a yearly combined caseload of open and fenestrated/branched endovascular aortic repair of < 20.

Class	Level	References	ToE
III	C	Consensus	

WHO SHOULD REPAIR AAA?

2022 ACC/AHA Guideline for the Diagnosis and Management of Aortic Disease: A Report of the American Heart Association/American College of Cardiology Joint Committee on Clinical Practice Guidelines

COR	LOE	Recommendations
2a	C-LD	2. For patients who are asymptomatic with extensive aortic disease, or who may benefit from complex open and endovascular aortic repairs, or with multiple comorbidities for whom intervention is considered, referral to a high-volume center (performing at least 30-40 aortic procedures annually) with <u>experienced surgeons in a Multidisciplinary Aortic Team</u> is reasonable to optimize treatment outcomes. ¹⁴

EVAR FOR UNRUPTURED AAAs

NICE National Institute for Health and Care Research

Abdominal aortic aneurysm: diagnosis and management

NICE guideline [NG161]. Published 19 March 2020

Only for patients with hostile abdomen, medical comorbidities or anesthetic risks that contra-indicate open surgery.

Recommendation 65 Unchanged

For most patients with suitable anatomy and reasonable life expectancy, endovascular repair should be considered the preferred treatment modality for elective abdominal aortic aneurysm repair.

Class	Level	References	ToE
IIa	B	Lijja et al. (2017), ¹¹	

TRAINING FOR AAA REPAIR

CLINICAL PRACTICE GUIDELINE DOCUMENT

European Society for Vascular Surgery (ESVS) 2024 Clinical Practice Guidelines on the Management of Abdominal Aorto-Iliac Artery Aneurysms¹

Recommendation 5 New

The vascular surgery training curriculum should include simulation based training in open and endovascular aortic repair.

Class	Level	References	ToE
I	B	Maguire et al. (2020), ⁵¹ Robinson et al. (2013), ⁵⁵ Lawaetz et al. (2021), Desender et al. (2016), ⁵⁷ Desender et al. (2017), ⁷⁰ Saratzis et al. (2017) ⁷¹	

NEW CLASS II A RECOMMENDATIONS

CLINICAL PRACTICE GUIDELINE DOCUMENT

European Society for Vascular Surgery (ESVS) 2024 Clinical Practice Guidelines on the Management of Abdominal Aorto-Iliac Artery Aneurysms¹

- For patients with compromised proximal seal after EVAR, proximal extension with fenestrated and branched devices should be considered in preference to other endovascular techniques.

NEW CLASS III RECOMMENDATIONS

CLINICAL PRACTICE GUIDELINE DOCUMENT

European Society for Vascular Surgery (ESVS) 2024 Clinical Practice Guidelines on the Management of Abdominal Aorto-Iliac Artery Aneurysms¹

- Elective EVAR outside the manufacturer's instruction for use is not recommended.
- Restricting exercise or sexual activity in patients with small AAA is not indicated.

TAKE HOME MESSAGE

- Society guidelines should be living, on-line documents that are regularly updated based on new evidence and unbiased opinion of an expert panel
- New update of the SVS AAA guidelines is urgently needed

THANK YOU!

