C5 Or C6 With Arterial Claudication: Which Comes First

Marc A. Passman, M.D.
Professor of Surgery
Division of Vascular Surgery & Endovascular Therapy
University of Alabama at Birmingham

**Conflicts of Interest: None**

---

**SVS – AVF Clinical Practice Guidelines**

- **Guideline 3.7: Arterial Testing** - We recommend arterial pulse examination and measurement of ankle brachial index (ABI) on all patients with venous leg ulcer. [GRADE -1; LEVEL OF EVIDENCE -B]

- **Guideline 5.4: Compression – Arterial Insufficiency** - In a patient with a venous leg ulcer and underlying arterial disease, we do not suggest compression bandages or stockings if ABI < 0.5 or less or if absolute ankle pressure is less than 60mmHg. [GRADE -2; LEVEL OF EVIDENCE -C]

  - ABI ≤ 0.9 → referral should be made to vascular specialist for further arterial evaluation and possible revascularization consideration prior to compression therapy.
  - ABI 0.5 – 0.9 → modified compression
  - ABI ≤ 0.5 or ankle pressure ≤ 60mmHg → no compression

---

**Mixed Venous-Arterial Ulcer**

**How Common?**

Mixed Venous-Arterial Ulcer

Can Compression Make it Worse?

Mixed Venous-Arterial Ulcer

Outcomes – Compression?

---

**SVS – AVF Clinical Practice Guidelines**

- **Clinical Evaluation – Arterial Disease?**
  - Guideline 3.7: Arterial Testing - We recommend arterial pulse examination and measurement of ankle brachial index (ABI) on all patients with venous leg ulcer. [GRADE -1; LEVEL OF EVIDENCE -B]

- **Clinical Evaluation – Arterial Disease?**
  - Guideline 5.4: Compression – Arterial Insufficiency - In a patient with a venous leg ulcer and underlying arterial disease, we do not suggest compression bandages or stockings if ABI < 0.5 or less or if absolute ankle pressure is less than 60mmHg. [GRADE -2; LEVEL OF EVIDENCE -C]

  - ABI ≤ 0.9 → referral should be made to vascular specialist for further arterial evaluation and possible revascularization consideration prior to compression therapy.
  - ABI 0.5 – 0.9 → modified compression
  - ABI ≤ 0.5 or ankle pressure ≤ 60mmHg → no compression

---

**Mixed Venous-Arterial Ulcer**

**How Common?**

Mixed Venous-Arterial Ulcer

Can Compression Make it Worse?

Mixed Venous-Arterial Ulcer

Outcomes – Compression?

---

**Mixed Venous-Arterial Ulcer**

**How Common?**

Mixed Venous-Arterial Ulcer

Can Compression Make it Worse?

Mixed Venous-Arterial Ulcer

Outcomes – Compression?

---

**Mixed Venous-Arterial Ulcer**

**How Common?**

Mixed Venous-Arterial Ulcer

Can Compression Make it Worse?

Mixed Venous-Arterial Ulcer

Outcomes – Compression?

---

**SVS – AVF Clinical Practice Guidelines**

- **Clinical Evaluation – Arterial Disease?**
  - Guideline 3.7: Arterial Testing - We recommend arterial pulse examination and measurement of ankle brachial index (ABI) on all patients with venous leg ulcer. [GRADE -1; LEVEL OF EVIDENCE -B]

- **Clinical Evaluation – Arterial Disease?**
  - Guideline 5.4: Compression – Arterial Insufficiency - In a patient with a venous leg ulcer and underlying arterial disease, we do not suggest compression bandages or stockings if ABI < 0.5 or less or if absolute ankle pressure is less than 60mmHg. [GRADE -2; LEVEL OF EVIDENCE -C]

  - ABI ≤ 0.9 → referral should be made to vascular specialist for further arterial evaluation and possible revascularization consideration prior to compression therapy.
  - ABI 0.5 – 0.9 → modified compression
  - ABI ≤ 0.5 or ankle pressure ≤ 60mmHg → no compression

---

**Mixed Venous-Arterial Ulcer**

**How Common?**

Mixed Venous-Arterial Ulcer

Can Compression Make it Worse?

Mixed Venous-Arterial Ulcer

Outcomes – Compression?

---

**SVS – AVF Clinical Practice Guidelines**

- **Clinical Evaluation – Arterial Disease?**
  - Guideline 3.7: Arterial Testing - We recommend arterial pulse examination and measurement of ankle brachial index (ABI) on all patients with venous leg ulcer. [GRADE -1; LEVEL OF EVIDENCE -B]

- **Clinical Evaluation – Arterial Disease?**
  - Guideline 5.4: Compression – Arterial Insufficiency - In a patient with a venous leg ulcer and underlying arterial disease, we do not suggest compression bandages or stockings if ABI < 0.5 or less or if absolute ankle pressure is less than 60mmHg. [GRADE -2; LEVEL OF EVIDENCE -C]

  - ABI ≤ 0.9 → referral should be made to vascular specialist for further arterial evaluation and possible revascularization consideration prior to compression therapy.
  - ABI 0.5 – 0.9 → modified compression
  - ABI ≤ 0.5 or ankle pressure ≤ 60mmHg → no compression

---

**Mixed Venous-Arterial Ulcer**

**How Common?**

Mixed Venous-Arterial Ulcer

Can Compression Make it Worse?

Mixed Venous-Arterial Ulcer

Outcomes – Compression?

---

**SVS – AVF Clinical Practice Guidelines**

- **Clinical Evaluation – Arterial Disease?**
  - Guideline 3.7: Arterial Testing - We recommend arterial pulse examination and measurement of ankle brachial index (ABI) on all patients with venous leg ulcer. [GRADE -1; LEVEL OF EVIDENCE -B]

- **Clinical Evaluation – Arterial Disease?**
  - Guideline 5.4: Compression – Arterial Insufficiency - In a patient with a venous leg ulcer and underlying arterial disease, we do not suggest compression bandages or stockings if ABI < 0.5 or less or if absolute ankle pressure is less than 60mmHg. [GRADE -2; LEVEL OF EVIDENCE -C]

  - ABI ≤ 0.9 → referral should be made to vascular specialist for further arterial evaluation and possible revascularization consideration prior to compression therapy.
  - ABI 0.5 – 0.9 → modified compression
  - ABI ≤ 0.5 or ankle pressure ≤ 60mmHg → no compression

---

**Mixed Venous-Arterial Ulcer**

**How Common?**

Mixed Venous-Arterial Ulcer

Can Compression Make it Worse?

Mixed Venous-Arterial Ulcer

Outcomes – Compression?
Mixed Venous-Arterial Ulcer Outcomes – Compression?

- Healing rates and cost efficacy of outpatient compression treatment for leg ulcers associated with venous insufficiency
- Outcomes: Compression is effective in achieving healing of venous ulcers, with complete healing in most cases after 6-8 weeks of treatment.
- Conclusion: Compression should be considered the first-line treatment for venous ulcers, especially those with chronic or recurrent lesions.

Mixed Venous-Arterial Ulcer Outcome – Selective Revascularization?

- Management of mixed arterial and venous leg ulcers
- Selective revascularization may be considered when compression therapy fails to achieve healing within 6-8 weeks.
- Endovascular procedures can be used to bypass lesions in the superficial femoral artery.

Conclusion – Which Comes First?

- Mixed venous-arterial ulcers are common (10%-30%)
- Venous imaging should be used to document venous disease
- Pulse exam and ABI on all patients with venous ulcer
- ABI can be used to stratify treatment including use of compression and need for revascularization.