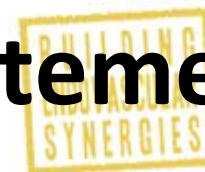


# Arterial limb lesions and options for treatment : atherectomy Silverhawk & Atherotomes

Professor E Ducasse

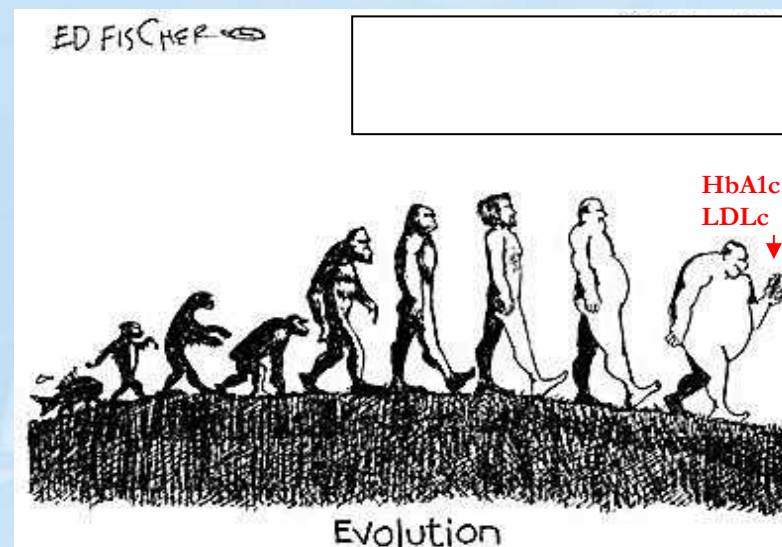
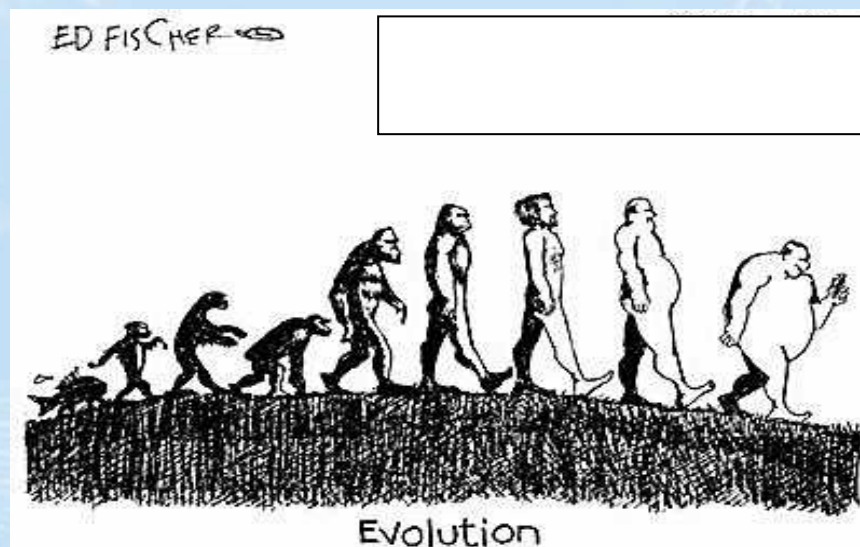
Unit of Vascular Surgery  
University of Bordeaux

# Conflict of Interest Statement

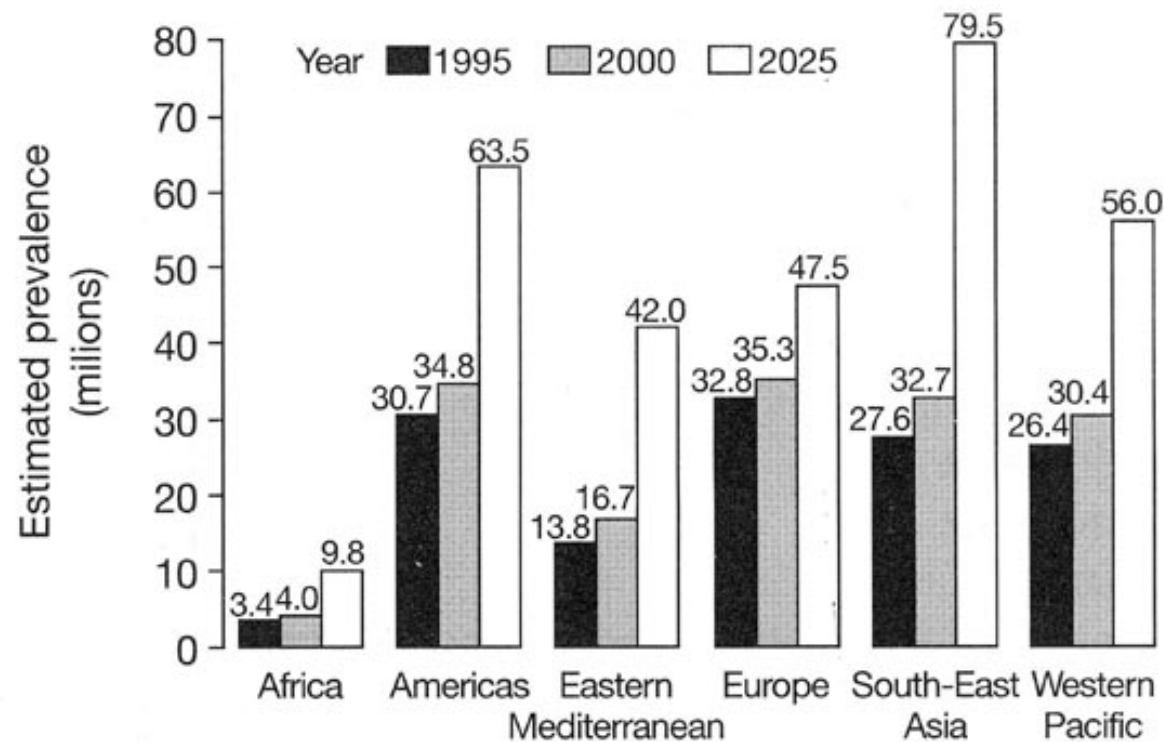


- Conflict of Interest Statement
  - None
- Affiliation with organization(s)
  - None
- Affiliation/consultance with industrials
  - Gore®
  - Cook®
  - Biotronik®
  - Abbott®

- Chronical or Critical Limb Ischemia :
  - Age
  - Post revascularization
  - Diabetic status - dyslipidemia

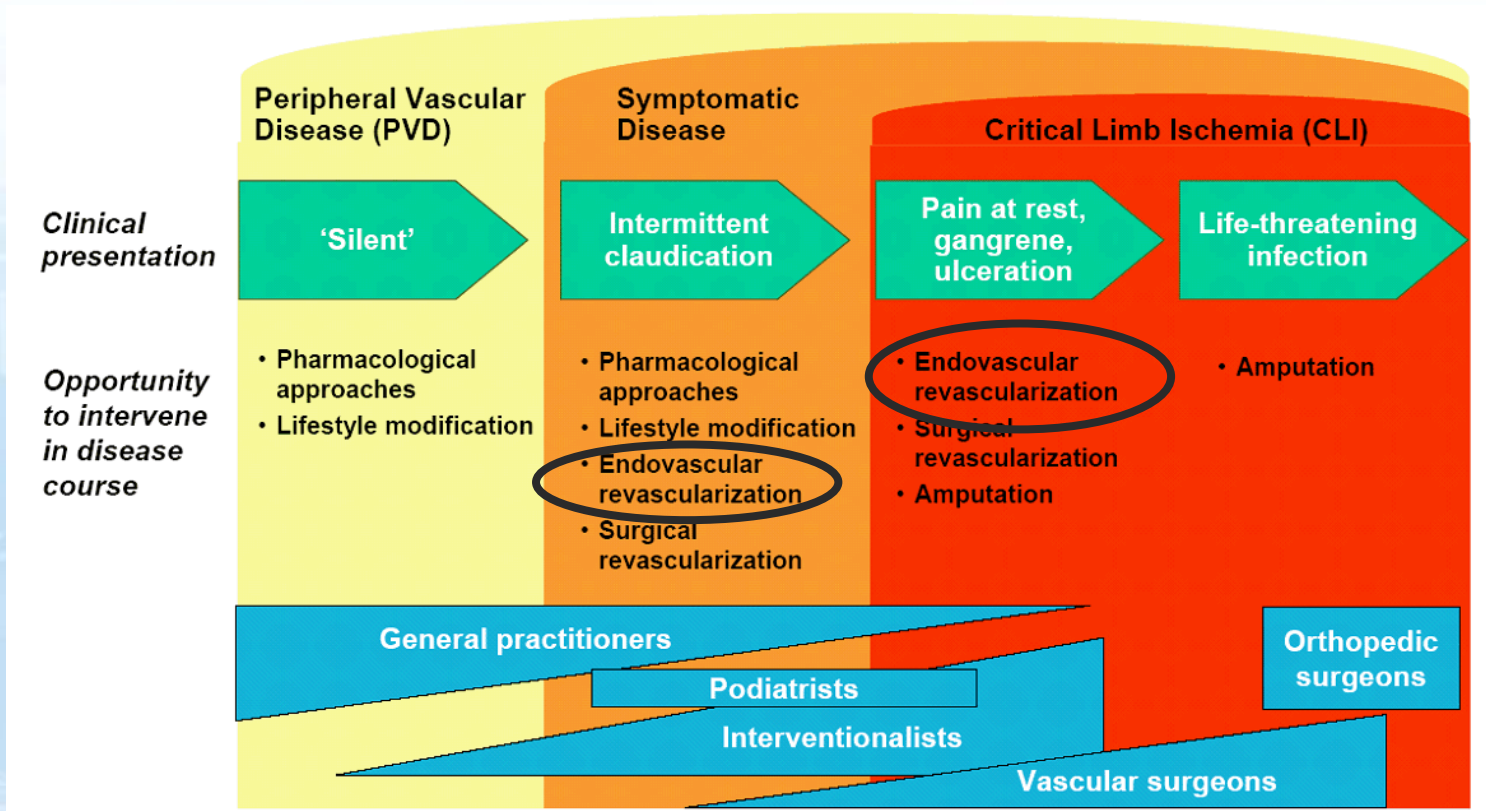


# Epidemiology - challenge



- WHO prediction (for the next 20 years)

# ARTERIAL LIMB LESION : OPTIONS



# ENDOVASCULAR USE : SFA



- Since SIRROCCO 2 study
  - Restenosis rate at 2 years : 21%
  - Superiority of SE stent versus BE stent

Angioplasty in accordance with [TASC 2](#)

- Nevertheless FESTO study *Scheinert et al J Am Coll Cardiol 2005*
  - Overall stent fracture 24.5 %
  - Minor : single strut fracture : 48.4%
  - Moderate > 1 strut fracture : 26.6%
  - Severe : 25%

# ENDOVASCULAR USE : popliteal artery

- Indication still disputed
- Material poorly evaluated



# ENDOVASCULAR USE : BTK lesions



- Since 1988 (Schwarten and Cutcliff) and Basil study Lancet 2005
- TASC 2 recommandation
- Stent improve limb salvage (Rand et al. – Carbostent CVIR 2005)
  - Nitinol stent in proximal part
  - Bare stent in distal part

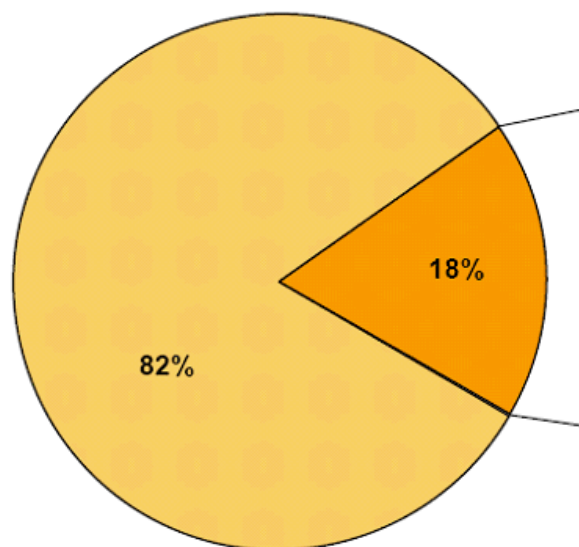






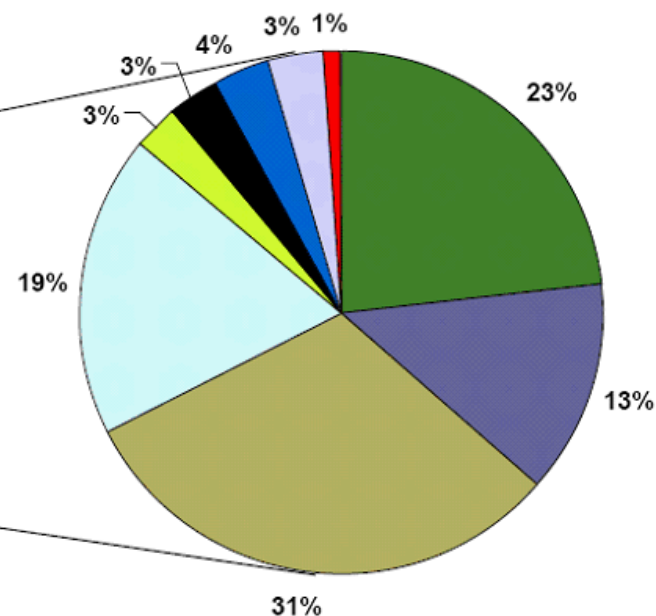
# Arterial limb lesions : current habits

Endovascular Interventions, by type



- POBA
- Advanced endovascular techniques

Advanced Endovascular Interventions, by type



- Atherectomy
- PTA and SX Stent
- PTA and BX Stent
- Cutting Balloon Alone
- Cutting Balloon and SX Stent
- Cutting Balloon and BX Stent
- SX Stent Alone
- BX Stent Alone

# ENDOVASCULAR : NEW OPTION

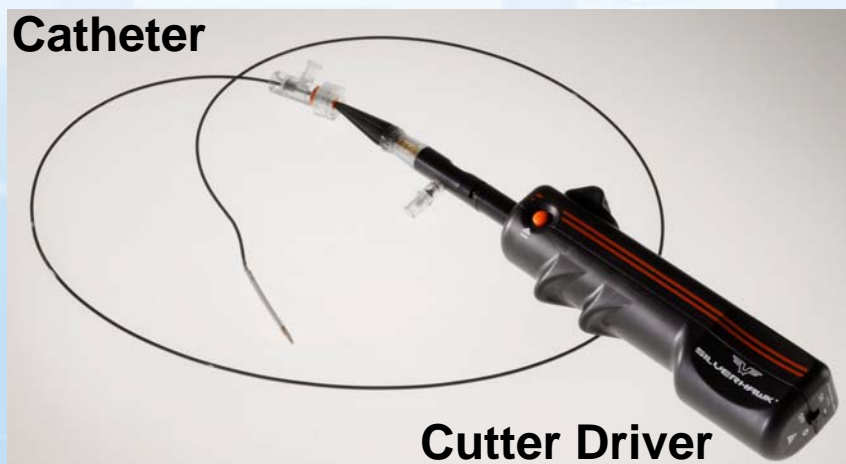


- Rotational atherectomy
  - Restore run-off « straight line flow to the foot » to the most distal necrotic lesions
  - Without adjunction of material
    - To avoid crush material
    - To avoid restenosis
- Plaque excision/capture without blocking flow with cutter removing plaque
- Adapted size to the lumen size → ATK and BTK occlusive arterial diseases

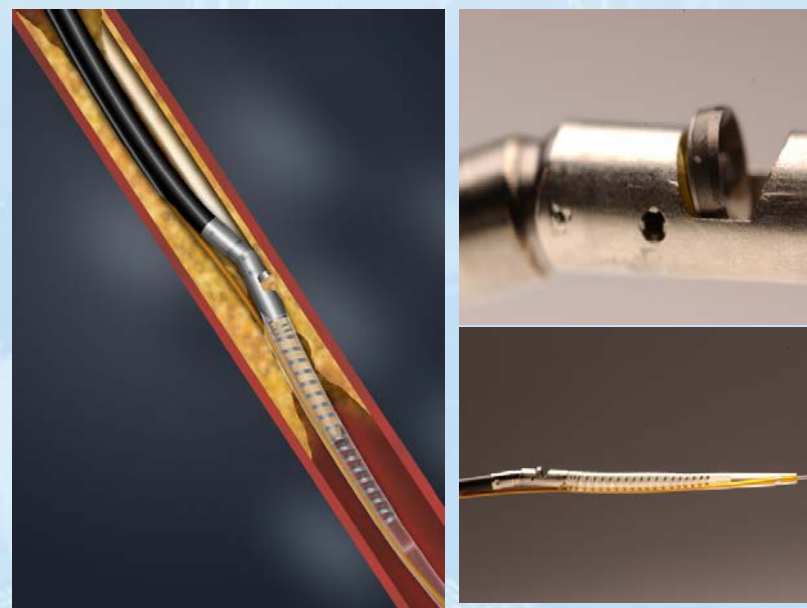
# SILVERHAWK

- Compatible with 0.014 guidewire
- With or without predilatation – recanalisation

- **Catheter**



Cutter functionality is controlled by a single on/off thumb-switch that resides on the drive unit.



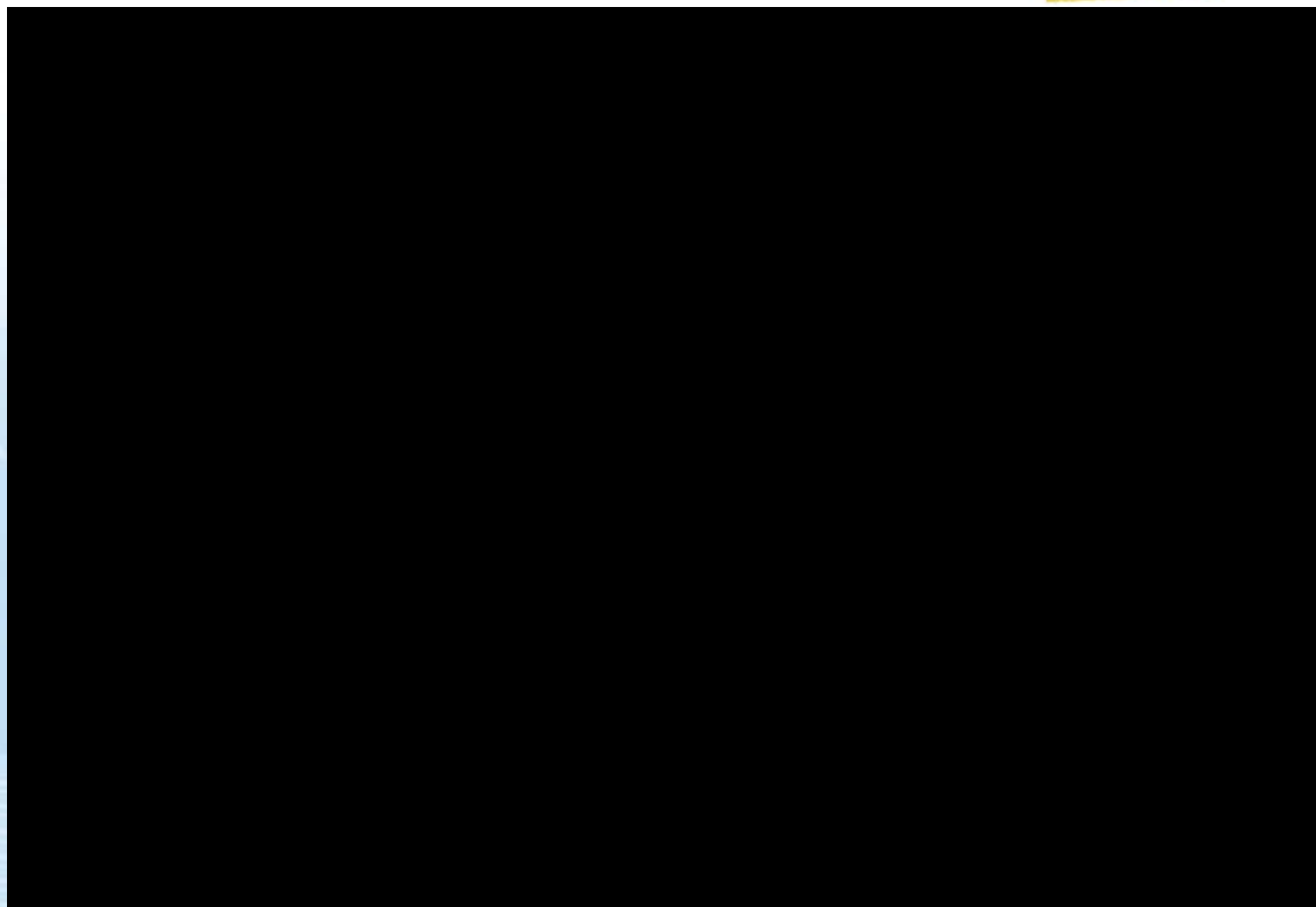


# SILVERHAWK device



**MEET** 2008  
MULTIDISCIPLINARY EUROPEAN  
ENDOASCULAR THERAPY

[www.meetcongress.com](http://www.meetcongress.com)



# SILVERHAWK : RESULTS



- 5 Single Center studies (with over 400 patients) exhibited 12 month clinical patency of 80% or greater
- An independent study, conducted by T. Zeller (*J Endovasc Ther* 2007) confirmed a clinical patency in the de novo group of 84% and 73% at 12 and 18 months respectively
  - SFA : 47%
  - PA : 47%
  - TPA : 6%
  - 13% of stent adjunction
  - TLR at 6 months : 0%
- Thus, Rotational atherectomy for ATK and BTK lesions is efficient, safe and appears as a new tool for Limb Salvage therapy

# SILVERHAWK : personal view



- Efficient
- Angiogram control perfect
- ... longer (.....more...)
- Main limiting factor : calcified lesions +++
- Ideal device for restenosis lesions Vs cutting balloon with a complete fibrotic plaque excision and removal
- Confirmation are expected...

## CONCLUSION

- To treat patient : choose the most promising device → **Silverhawk**
- Take the most competitive **bird...**

