

See clearly.  
Treat optimally.

innovation  you

**PHILIPS**

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See clearly.  
Treat optimally.

Philips IVUS gives clinicians the visualization needed to quickly and precisely assess a PAD procedural challenge so they can treat optimally with our atherectomy and DCB solutions.

**Improved outcomes | Optimized care | Greater efficiencies**

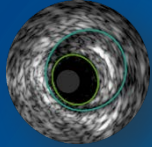
Fatty-Fibrous  
Aqueous IntraLumen  
Fatty Ostial Long  
Calcified  
Hyperplasia ISR  
Homogeneous Medial CTOs  
Neointimal Soft  
Heterogeneous  
Thrombus TrueLumen



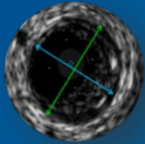
## Angiography alone is not enough

Angiography provides information on luminal characteristics of peripheral arteries, but severely underestimates the extent of atherosclerosis in patients with PAD, even in “normal appearing” vessels.

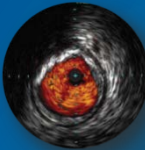
Kashyap VS, Pavkov ML, Bishop PD, et al. Angiography underestimates peripheral atherosclerosis: lumenography revisited. *J Endovasc Ther.* 2008;15(1):117-125.



IVUS helps assess the disease.



IVUS guides treatment decisions.



IVUS helps confirm therapy results.

- % stenosis
- Calcium and thrombus
- Real time vessel diameters
- Length of stenosis
- Dissection
- Position of wire in true or false lumen
- Location of side branches (without using contrast)
- Completeness of treatment

IVUS changed treatment plans in  
79% of cases.

Spark I, Allan R. The role of IVUS in peripheral interventions. *Charing Cross*. 2018. London, UK.  
N=47

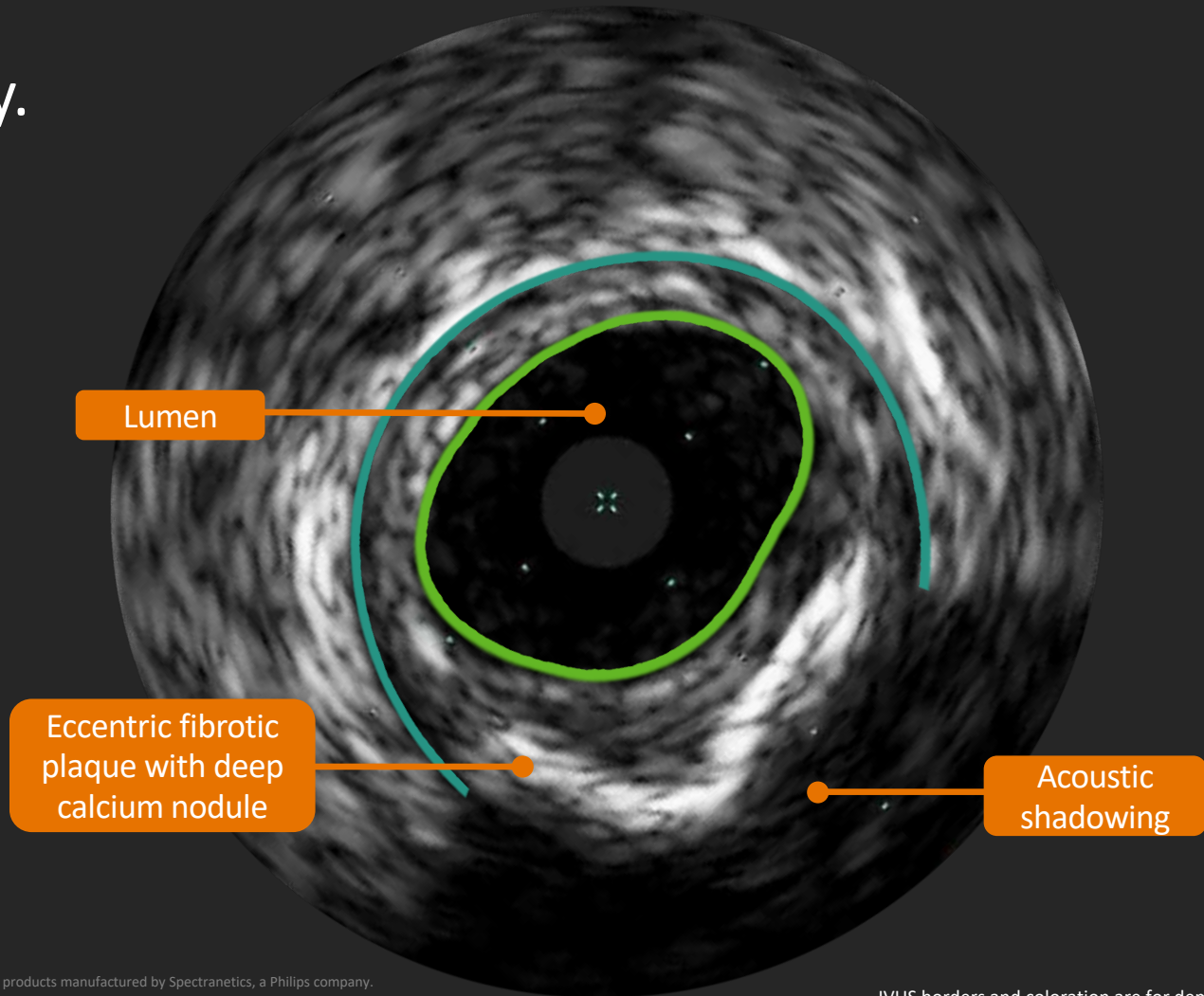


## Start seeing clearly through IVUS eyes

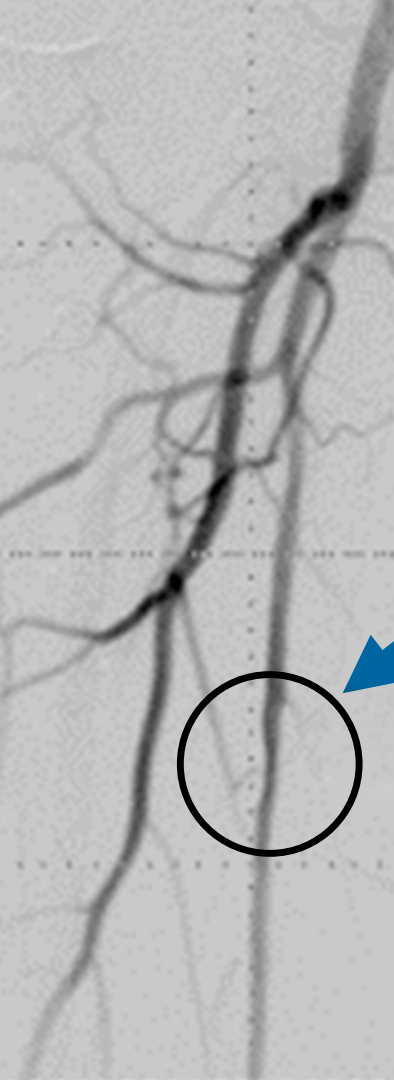
A collaborative approach that leads to:

- Individualized treatment plans for patients
- Increased focus on solutions for physicians
- Vendor consolidation for greater efficiencies

See clearly.

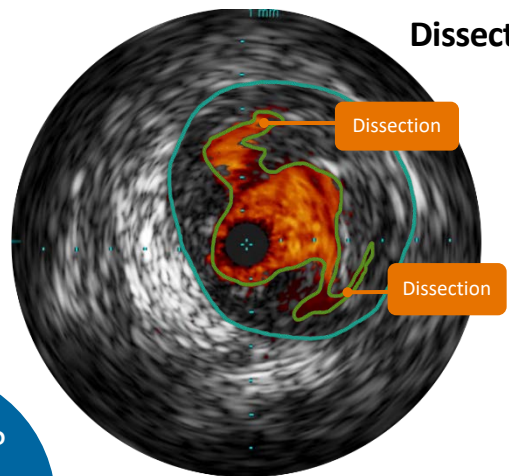




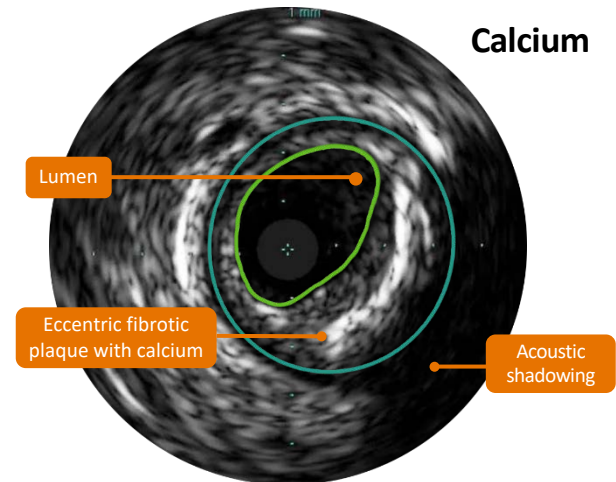


Dissection?  
Calcium?  
Thrombus?  
Stenosis?

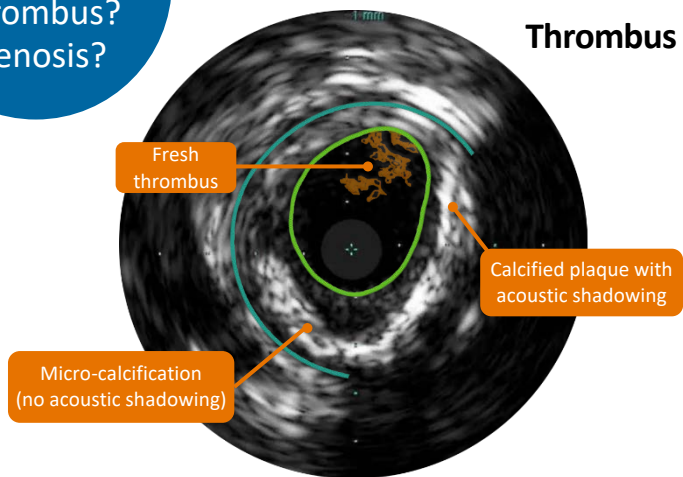
### Dissection



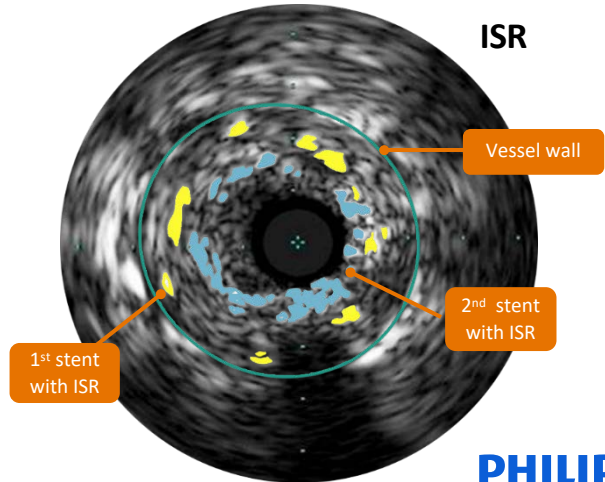
### Calcium



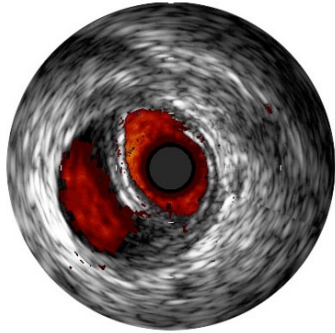
### Thrombus



### ISR

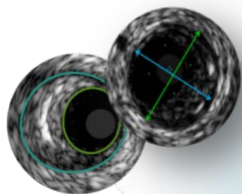


IVUS borders and coloration are for demonstration purposes only



Philips IVUS provides the visualization and guidance essential for assessing clinical challenges quickly and precisely.

# What can you see through IVUS eyes?

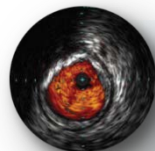


## Vessel sizing

Diameter  
Long diffuse  
Focal

### Benefits of understanding vessel sizing

Guides appropriate selection and sizing for devices depending on wall apposition, drug delivery and preventing geographic miss.

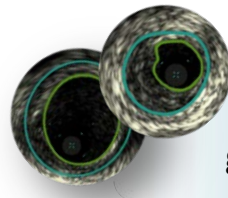


## Plaque morphology

Thrombus  
Fibrotic  
Mixed  
Calcific

### Benefits of understanding plaque morphology

Understanding plaque type and location and extent of calcium is key to choosing prep or atherectomy needed.

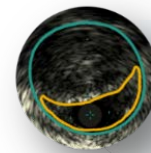


## Plaque geometry

Eccentric  
Concentric

### Benefits of understanding plaque geometry

Circumference and location of the plaque burden is important when selecting a tool.



## Guidewire position

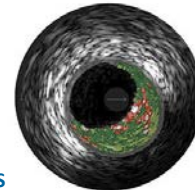
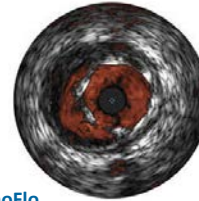
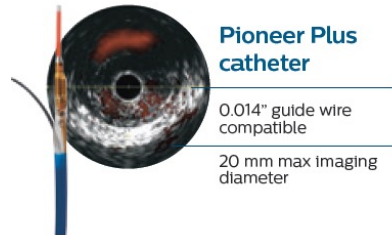
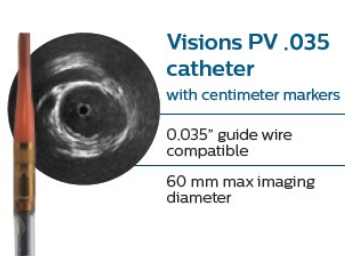
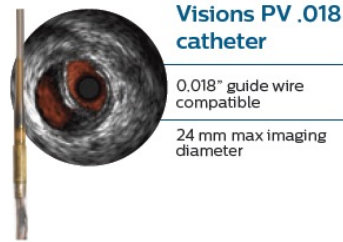
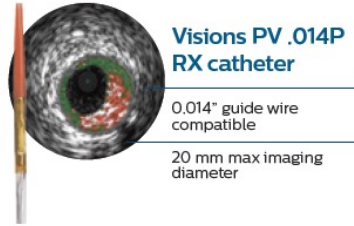
True lumen  
Sub-intimal

### Benefits of understanding guidewire position

Depth of dissection into the sub-intimal space is important to know to avoid adventitial cuts.

# Visions PV catheters

Only full suite of advanced imaging catheters



Subclavian artery

Renal artery

Aorta and IVC

Iliac vein and arteries

Superficial femoral artery

Popliteal artery

Below the knee

# See clearly | A line of sight to an optimal treatment path

The Philips portfolio of devices offers the versatility needed to treat the majority of PAD cases and are designed to deliver improved outcomes.

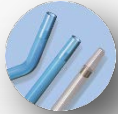


# Treat optimally

Philips delivers versatility to treat the majority of patients

## Crossing

Cross your toughest lesions



**QuickCross catheter**  
Number one selling support catheter



**Pioneer Plus catheter**  
Only IVUS-guided re-entry catheter

## Atherectomy & prep

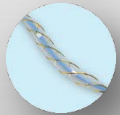
Debulk thrombus, calcium, NIH, Ostial, CTO, mixed morphologies, aqueous, soft plaque



**Turbo-Power laser atherectomy**  
Directional debulking in mixed morphologies



**Phoenix atherectomy system**  
Debulk eccentric, luminal calcium



**AngioSculpt scoring balloon**  
Score medial calcium to prevent dissection

## Definitive treatment

Treat complex lesions without leaving metal behind



**Stellarex DCB**  
2-year durable treatment effect in complex calcified lesions

# Comprehensive crossing portfolio

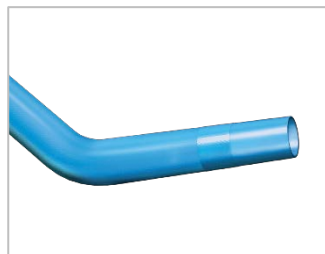
Because every lesion is not the same



**Quick-Cross**  
support catheters



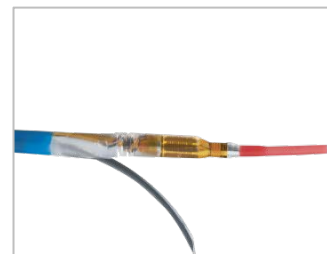
**Quick-Cross**  
**Extreme**



**Quick-Cross**  
**Select**



**Quick-Cross**  
**Capture**  
guidewire retriever



**Pioneer Plus**  
re-entry

- Solutions for challenging lesions & CTOs
- Navigate tortuous vessels

# Complementary atherectomy solutions

Choose the right tool for each ATK/BTK plaque presentation

- Luminal gain
- Direct lesion access
- Single insertion
- Continuous debulking
- Directional ability
- Mixed morphologies

Phoenix Atherectomy: cut, capture, and clear



Strength of mechanical cutting in BTK calcium

Laser Atherectomy: light, sound and cavitation bubble



Only atherectomy indicated for ISR\* and CTO crossing

\*Bare metal stent

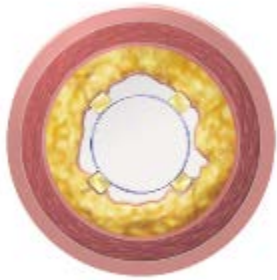
**PHILIPS**



# AngioSculpt scoring balloon

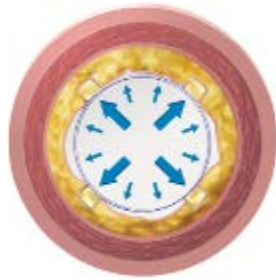
Works where conventional balloons struggle

A **more controlled** angioplasty  
with **fewer significant dissections** requiring bail-out stenting



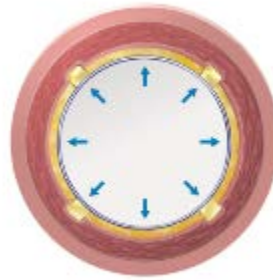
**Precision**

Minimal slippage<sup>1,2</sup>



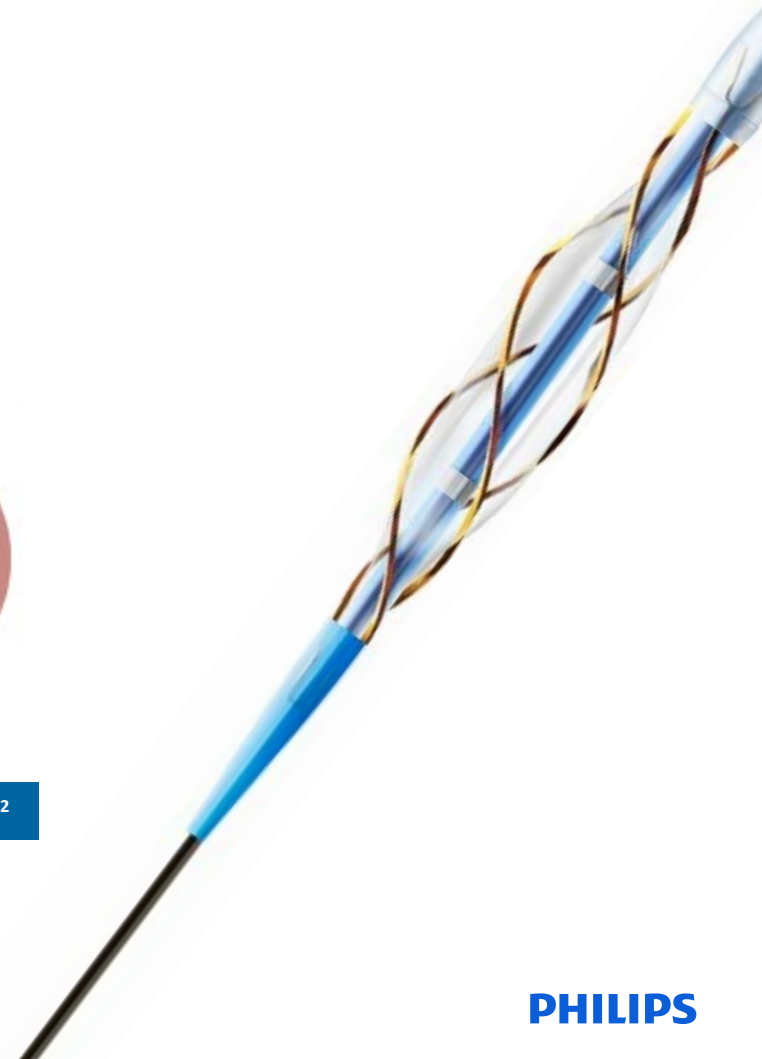
**Power**

More dilatation force<sup>3</sup>



**Safety**

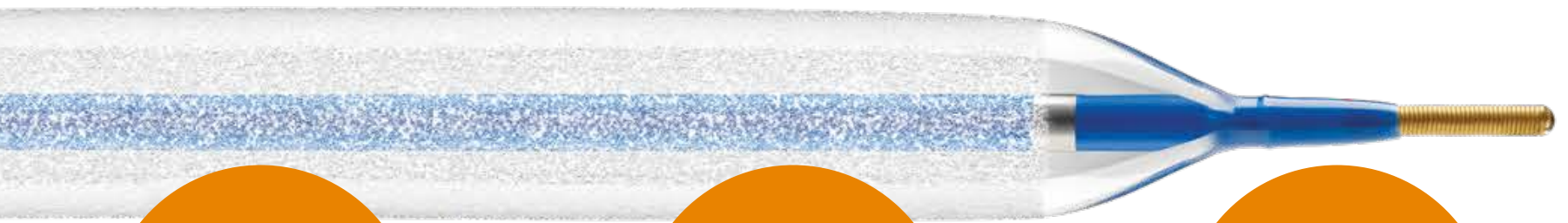
Low dissection rate<sup>1,2</sup>



1. Kiesz RS, Scheinert D, Peeters PJ, et al. Results from the international registry of the AngioSculpt Scoring Balloon Catheter. J Am Coll Cardiol. 2008;51:10 (suppl B):75.  
2. Scheinert D, Peeters P, Bosiers M, et al. Results of the multicenter first-in-man study of a novel scoring balloon catheter for the treatment of infra-popliteal peripheral arterial disease. Catheter Cardiovasc Interv. 2007;70:1034-1039.  
3. AngioSculpt Test Plan ST-1197 (2008), on file at Philips.

# Stellarex drug-coated balloon

Only treatment that endures in complex patients with a low drug dose

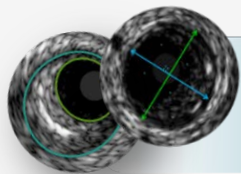


Only DCB  
reporting durable  
2yr patency in  
calcified lesions<sup>1</sup>

Differentiated  
technology designed  
for performance in  
complex lesions

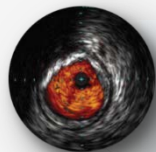
60 second  
inflation hold  
time means less  
waiting<sup>2</sup>

## See clearly.



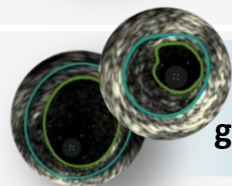
### Vessel sizing

Diameter \_\_\_\_\_  
Long diffuse \_\_\_\_\_  
Focal \_\_\_\_\_



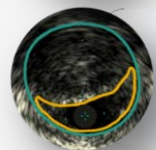
### Plaque morphology

Soft | thrombus \_\_\_\_\_  
Fibrotic \_\_\_\_\_  
Mixed \_\_\_\_\_  
Calcific \_\_\_\_\_



### Plaque geometry

Eccentric \_\_\_\_\_  
Concentric \_\_\_\_\_



### Guidewire position

True lumen \_\_\_\_\_  
Subintimal \_\_\_\_\_

## Treat optimally.

AngioSculpt



Stellarex



Turbo-Power atherectomy



Stellarex



Phoenix atherectomy



Stellarex



Turbo-Elite atherectomy



AngioSculpt



Turbo-Power atherectomy



Stellarex



Phoenix atherectomy



Stellarex



Phoenix atherectomy



AngioSculpt



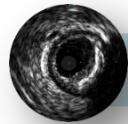
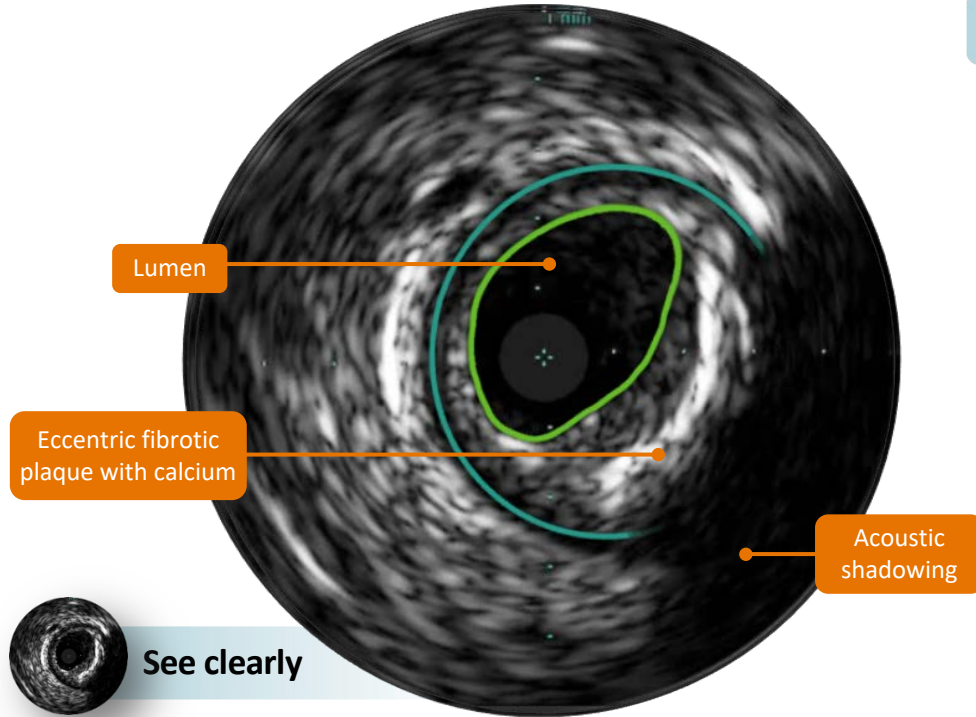
Phoenix atherectomy



Pioneer Plus



# See clearly. Treat optimally.



## See clearly

- Eccentric lesion
- Mixed plaque
- Intimal and medial calcium
- 5.5mm diameter, 45mm long

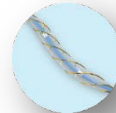
## Treat optimally



- Phoenix atherectomy, 2.4mm deflecting**
- Debulk eccentric, luminal calcium



- Turbo-Power atherectomy**
- Directional debulking in mixed morphologies

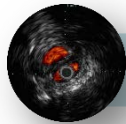
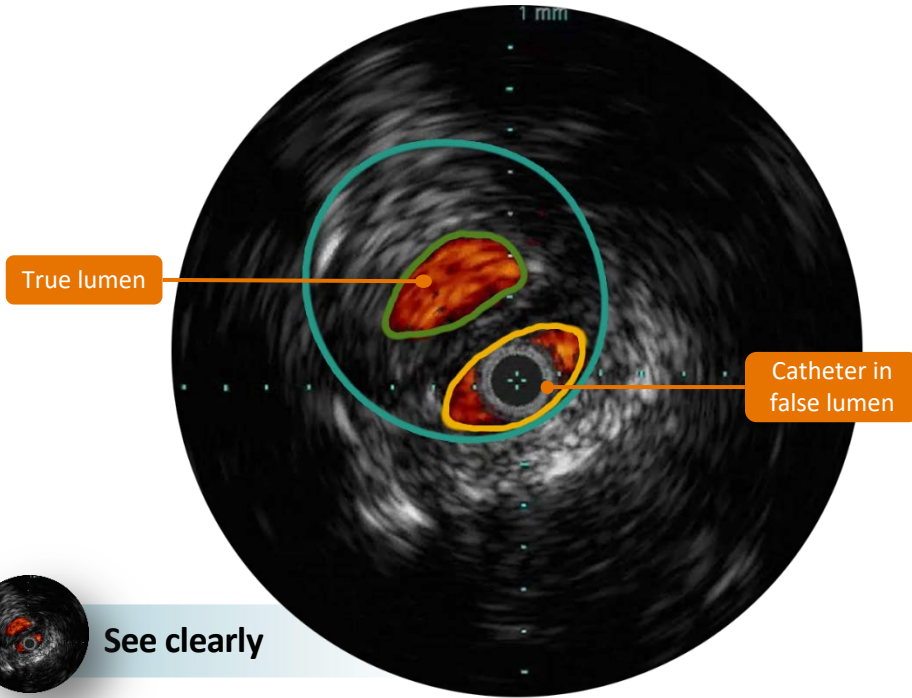


- AngioSculpt scoring balloon**
- Score medial calcium to prevent dissection



- Stellarex DCB, 5 x 60mm**
- Effective in calcified lesions

# See clearly. Treat optimally.



**See clearly**

- Concentric lesion
- Fibrous plaque
- Guidewire position in subintimal space
- 7mm diameter, 60mm long

**Treat optimally**



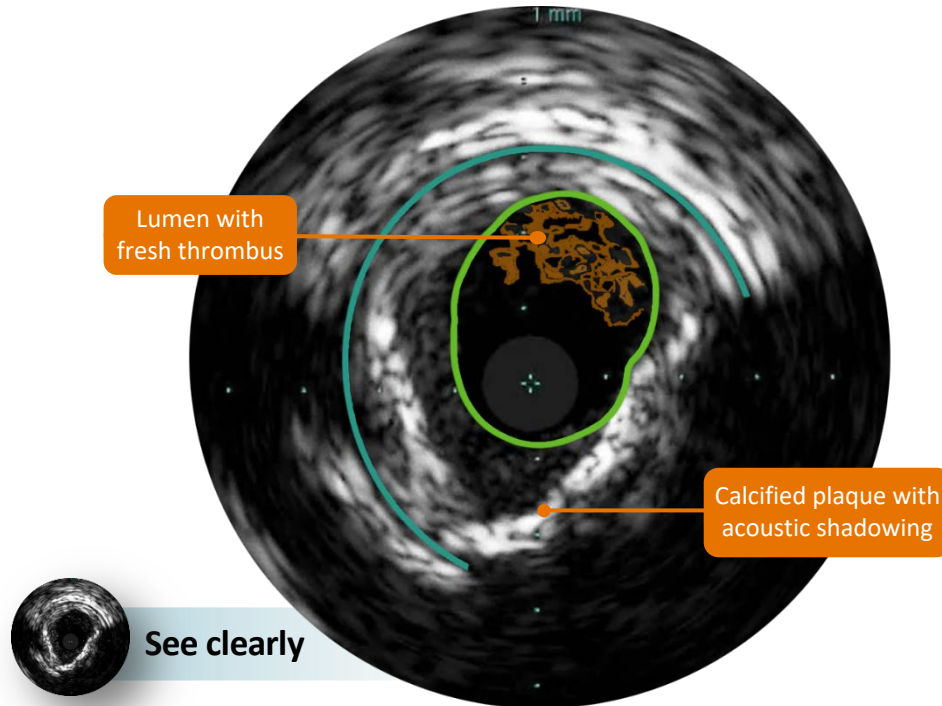
**Pioneer Plus re-entry catheter**

- IVUS-guided re-entry
- ChromaFlo helps identify true and false lumen quickly and confidently.

IVUS borders and coloration are for demonstration purposes only

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# See clearly. Treat optimally.



- Eccentric lesion
- Mixed, thrombotic plaque
- Intimal and medial calcium
- 5.5mm diameter, 100mm long

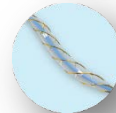
## Treat optimally



- Phoenix atherectomy, 2.4mm deflecting**
- Debulk eccentric, luminal calcium



- Turbo-Power atherectomy**
- Directional debulking in mixed morphologies



- AngioSculpt scoring balloon**
- Score medial calcium to prevent dissection



- Stellarex DCB, 5 x 120mm**
- Effective in calcified lesions

# The Philips vision



## A connected suite of the future

Where imaging, devices, monitoring and software all come together to deliver a full solution that informs better guidance and treatment, leading towards:

- Improved outcomes
- Optimized workflows
- Reduced cost of care

# See clearly. Treat optimally.

Philips Image-Guided Therapy  
Devices mission: **improve the  
lives of 3 million patients  
annually by 2022.**







## **Stellarex 0.035 Drug-coated balloon**

### **Important safety information**

The Stellarex Drug-coated Angioplasty Balloon is indicated for percutaneous transluminal angioplasty (PTA), after appropriate vessel preparation, of de novo or restenotic lesions up to 180 mm in length in native superficial femoral or popliteal arteries with reference vessel diameters of 4-6 mm.

The Stellarex™ Drug-coated Angioplasty Balloon is contraindicated for use in:

- Patients with known hypersensitivity to paclitaxel or structurally related compounds.
- Patients who cannot receive recommended antiplatelet and/or anticoagulation therapy.
- Women who are breastfeeding, pregnant or are intending to become pregnant or men intending to father children.
- Coronary arteries, renal arteries, and supra-aortic/cerebrovascular arteries
- Patients judged to have a lesion that prevents complete inflation of an angioplasty balloon or proper placement of the delivery system

Possible adverse effects associated with the balloon dilation procedure include, but are not limited to: Abrupt vessel closure; Allergic reaction to contrast medium, antiplatelet therapy, or catheter system components (drug, excipients, and materials); Amputation/ Loss of limb; Arrhythmias; Arterial aneurysm; Thrombosis; Arterio-venous fistula (AVF); Bleeding; Death; Embolism/Device embolism; Fever; Hematoma; Hemorrhage; Hypertension/Hypotension; Infection or pain at insertion site; Inflammation; Ischemia or infarction of tissue/organ; Occlusion; Pain or tenderness; Peripheral edema; Pseudoaneurysm; Renal insufficiency or failure; Restenosis; Sepsis or systemic infection; Shock; Stroke/Cerebrovascular accident; Vessel dissection, perforation, rupture, spasm, or recoil; Vessel trauma which requires surgical repair; Balloon rupture; Detachment of a component of the balloon and/or catheter system; Failure of the balloon to perform as intended; Failure to cross the lesion.

Additional complications which may be associated with the addition of paclitaxel to the balloon include, but may not be limited to the following: Allergic/immunologic reaction to paclitaxel; Alopecia; Anemia; Gastrointestinal symptoms (diarrhea, nausea, pain, vomiting); Hematologic dyscrasia (including neutropenia, leucopenia, thrombocytopenia); Hepatic enzyme changes; Histologic changes in vessel wall including inflammation, cellular damage, or necrosis; Myalgia/Arthralgia; Myelosuppression; Peripheral neuropathy.