Education, training, and solutions

Percutaneous coronary intervention (PCI) and hypertension (HTN)

Offerings by professional responsibility
On-demand education and training
Practice-supporting solutions
Live programs – in-person and virtual
Connect with Medtronic
### Offerings by profession – coronary

<table>
<thead>
<tr>
<th>Program type</th>
<th>Program name</th>
<th>Interventional cardiologist</th>
<th>IC fellow</th>
<th>Hospital administrator</th>
<th>Cath lab staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-demand education</td>
<td>Webinar series recordings (DAPT &amp; CTO)</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>On-demand education</td>
<td>Accredited learning plans</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Practice-supporting solutions</td>
<td>Same-day discharge (SDD) for elective PCI</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Practice-supporting solutions</td>
<td>CTO PCI referral physician program</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Practice-supporting solutions</td>
<td>Physician referral and patient outreach programs (PPOP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practice-supporting solutions</td>
<td>Fellows textbook program</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Live programs</td>
<td>Observerships</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live programs</td>
<td>Proctorships</td>
<td></td>
<td>Coming soon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live programs</td>
<td>CV Leadership Summit</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Live programs</td>
<td>Galway Executive Summit</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Live programs</td>
<td>Technology Exchange – Galway</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live programs</td>
<td>Technology Exchange – Santa Rosa</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live programs</td>
<td>Technology Exchange – alumni program</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live programs</td>
<td>Physician speaker programs (DAPT &amp; CTO)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live programs</td>
<td>Fellows educational courses</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Live programs</td>
<td>Contact hour in-service program</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
## Offerings by profession – hypertension

<table>
<thead>
<tr>
<th>Program type</th>
<th>Program name</th>
<th>Interventional cardiologist</th>
<th>Hospital administrator</th>
<th>Cath lab staff</th>
<th>APPs • NPs • PAs</th>
<th>HTN clinic coordinator</th>
<th>HTN care referrers</th>
<th>Pharmacists</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-demand education</td>
<td>HTN webinar series</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>On-demand education</td>
<td>HTN interactive module</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>On-demand education</td>
<td>Beyond the basics: HTN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live programs</td>
<td>Contact hour in-service program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Webinar series recordings

**Audience:** interventional cardiologists, fellows, and cath lab staff

---

**Building Success in CTO PCI**
Access the four-part webinar series to watch subject matter experts review cases and share their expertise, including individual perspectives and what excites them about the future of CTO, as well as contemporary approaches, including:

- The hybrid algorithm
- Basic procedure techniques
- Advantages and disadvantages
- Complication prevention, identification, and treatment

**Featuring:**
Dr. Pershad
Dr. Brilakis
Dr. Maran
Dr. Yeh

**Watch the CTO PCI webinar series**

---

**DAPT Considerations in Complex HBR Patients**
Watch the three-part webinar series as subject matter experts review case studies and recent clinical evidence, and discuss decision-making for highly complex, high bleeding risk (HBR) patients, like those studied in the Onyx ONE Month DAPT Program.

**Featuring:**
Dr. Kandzari
Dr. Waksman
Dr. Price

**Watch the DAPT webinar series**

---

**Indications, safety, and warnings**

---
Accredited learning plans

Audience: cath lab staff

Cath lab staff can earn contact hours via Medtronic Academy learning plans, which are intended to educate on various percutaneous coronary intervention (PCI) topics, including:

- Back to Basics: Coronary Overview
- Back to Basics: Transradial
- Beyond the Basics: Chronic Total Occlusion (CTO)
- Beyond the Basics: Dual Antiplatelet Therapy (DAPT)
- Beyond the Basics: Hypertension

Access learning plans
Same-day discharge following an elective PCI procedure can help:

- Address the backlog of elective procedures while helping reduce patient fear
- Drive efficiency to positively impact hospital economic health, mindful of staffing constraints
- Maximize virtual solutions, limiting face-to-face contact

Leverage resources to help you implement an SDD program for your elective PCI patients, including protocol development, process implementation, and data metric tracking.

The same-day discharge program for elective PCI patients applies to those who meet certain hospital-defined criteria. Hospitals should use their own judgment as to which patients are eligible for SDD.
CTO PCI referral physician program

Presenters: CTO PCI operators
Audience: interventional cardiologists, general cardiologists, nurse practitioners, physicians' assistants, and cardiac surgeons

Provide referring physicians an overview of CTO PCI to help build their awareness in the space and improve collaboration in the care of their CTO patients.

Presentation will review:
- Clinical evidence
- Patient selection
- Procedure strategies
- Case studies

Resources to support your program include:
- Program summary
- Customizable invitation
- Evaluation form
- Sign-in sheet
- TAP event checklist
- Strategy and logistics FAQ

Access resources
Therapy awareness programs

Educate referring physicians and patients in your community by increasing awareness of coronary artery disease (CAD), symptoms, recommended lifestyle changes, and treatment options, as well as post-procedure management.

Physician referral

**Presenters:** interventional cardiologists  
**Audience:** general cardiologists, nurse practitioners, physicians' assistants, and cardiac surgeons  

**Physician topics include:**  
- COVID-19: addressing concerns for patients seeking medical care  
- Dual antiplatelet therapy (DAPT)  
- Patient education

Patient outreach programs (PPOP)

**Presenters:** interventional cardiologists  
**Audience:** patients

**Patient topics include:**  
- CAD  
- Women’s guide to CAD  
- Diabetes  
- Peripheral artery disease (PAD)  
- Transradial (TRA)
Fellows textbook program

Audience: fellows

Fellows can register to receive complimentary textbooks from Medtronic sales reps. Registration runs from July 1–Aug. 31 annually and books are distributed in the fall.

Learn more about the textbook program
# CTO PCI Observational Live Case Courses

**Audience:** Interventional cardiologists

## Fundamental Principles

<table>
<thead>
<tr>
<th>Emory Midtown</th>
<th>Cleveland Clinic</th>
<th>St. Luke’s Kansas City</th>
<th>University of Washington</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duration</strong></td>
<td>1½-day program</td>
<td>1½-day program</td>
<td>1½-day program</td>
</tr>
<tr>
<td><strong>Target Audience</strong></td>
<td>~12 CTO PCI operators</td>
<td>3-5 teams (one CTO PCI operator with one cath lab staff partner) = 6-10 total people (beginners and intermediate CTO operators)</td>
<td>3-4 CTO PCI operators</td>
</tr>
<tr>
<td><strong>Level of Experience</strong></td>
<td>ICs – all CTO operator levels welcome (beginners, intermediate, and advanced)</td>
<td>ICs (beginners and intermediate operators)</td>
<td>ICs (intermediate to advanced operators welcome)</td>
</tr>
<tr>
<td><strong>Program Overview</strong></td>
<td>Dinner to review and discuss strategies for cases</td>
<td>Dinner to review and discuss strategies for cases</td>
<td>Dinner to review and discuss strategies for cases</td>
</tr>
</tbody>
</table>
| **Live Cases and Discussion** | Live cases broadcasted to conference room, didactic discussion, Q&A | • Live cases broadcasted to conference room, didactic discussion, Q&A  
• Staff insight on supporting patients and ICs in CTO cases | Shadow physicians in the lab during live cases, didactic discussion between cases, Q&A | Live cases broadcasted to conference room, didactic discussion, Q&A |

---

Ask your Medtronic sales rep for details on how you can participate.
Proctorships

**Audience:** interventional cardiologists

Adding to the CTO physician training continuum with 1:1 proctorships

**Complex PCI proctoring program: CTO focus**
- Grow the expertise in the CTO field, ultimately benefiting patient care, growing the overall market for CTO PCI
- Build collaboration with ICs in treating patients with CTO PCI

**Details:**
- Faculty proctors will be experienced complex operators/CTO experts that will travel to the trainee’s site to provide “over the shoulder” guidance throughout the procedure
- Trainees must have taken a CTO PCI educational course in the past with Medtronic or another company with a formalized program and meet all other criteria, including but not limited to: toolkit available to handle CTO PCI cases, required number of previous PCIs and CTO PCI cases scheduled for day of proctorship
Attendees can partake in this contact hour-accredited program to discuss topics and share best practices regarding management of cardiovascular service lines and cath labs. Cover a range of topics, including:

- Economic considerations
- Cath lab patient continuum
- Same-day discharge
- CTO center development
- Collaborative problem-solving
- Medtronic CV products, services, program evolution, and pipeline

**Summit details:**
- Earn contact hours
- Two-day meeting
- Offered two times/year
- 80 spots per Summit

**CV Leadership Summit**
**Audience:** cardiovascular service line administrators with management-level responsibilities, cath lab managers, nurse managers

Live programs – in-person and virtual
Ask your Medtronic sales rep for details on how you can participate.
Galway Executive Summit

**Audience:** cardiovascular service line administrators and directors (facility and network level), C-suite executives, and cath lab directors

Attendees can engage with peers and Medtronic experts to discuss cardiovascular medical device innovation and unmet needs, review case studies and best practices, share their vision for the future of CV care, and more.

**Summit details:**
- Three-day meeting
- Offered three times/year (one for U.S. executives only)
- Takes place at the Medtronic Customer Innovation Center and Coronary Manufacturing Plant in Galway, Ireland
- 20 spots per Summit (five reserved for U.S. attendees)

Live programs – in-person and virtual

Ask your Medtronic sales rep for details on how you can participate.
Technology exchanges

**Galway Technology Exchange**
**Audience:** experienced interventional cardiologists
Medtronic research and development engineers collaborate on innovative therapies and technologies with experienced physicians.

**Program details:**
- 2.5-day meeting
- Offered three times per year
- Located at the Medtronic Customer Innovation Centre and Coronary Manufacturing Plant in Galway, Ireland

**Santa Rosa Technology Exchange**
**Audience:** early-career ICs
Early-career physicians familiarize themselves with Medtronic offerings, review the technology pipeline, and provide feedback on unmet clinical needs.

**Program details:**
- 2.5-day meeting
- Offered three times per year
- Located at the Medtronic Coronary and Renal Denervation, Fountaingrove office in Santa Rosa, California

**U.S. Clinical Exchange**
**Audience:** Technology Exchange alumni and young leaders
Review clinical data and device design updates with well-known faculty and Medtronic leadership.

**Program details:**
- 2.5-day meeting
- Offered annually in January

Live programs — in-person and virtual
Ask your Medtronic sales rep for details on how you can participate.
Physician speaker programs

Audience: interventional cardiologists and fellows

Experienced interventional cardiologists lead peers through complex PCI topics, referencing the latest and most robust clinical evidence. Programs are live and can be in-person or virtual. Virtual programs will be recorded and shared via Medtronic Academy.

The latest topics review:
- Dual antiplatelet therapy (DAPT) considerations in high bleeding risk patients
- Chronic total occlusion (CTO) cases
- Complex PCI

Live programs – in-person and virtual
Ask your Medtronic sales rep for details on how you can participate.
Fellows educational courses

Audience: fellows

Courses showcase complex coronary, structural heart, and peripheral cases where fellows can learn from and engage with well-known key opinion leaders in interventional cardiology.

Program details:
• Offered four times/year
• Participating locations include University Hospitals Cleveland Medical Center, New York Presbyterian/Columbia, and various institutions in San Diego

Live programs – in-person and virtual
Ask your Medtronic sales rep for details on how you can participate.
Contact hour in-service program
Audience: nurses, technologists, and technicians

Contact hour-certified in-service program offering 16 one-hour presentations, designed for cath lab staff to learn more about the cath lab environment while earning contact hours.

Topics include:
- Guide Catheter Selection
- Basic Coronary Angiography Interpretation
- Transradial Approach in PCI
- Fractional Flow Reserve (FFR)
- History of PCI
- PCI: Procedural Considerations
- PCI: Considerations within the Treated Vessel
- Choosing Your Guidewire
- Coronary Balloons Overview
- Coronary Stent Design
- Clinical Trial Definitions and Study Design
- Biology of Restenosis
- DES: Basic History and Current Technology
- DES: The Importance of Polymers (updated)
- Use of DAPT with Coronary Stents (updated)
- Overview of CVD in People with Diabetes
- Hypertension Awareness
HTN interactive modules

**Audience:** any healthcare provider/worker that has a touch point in the hypertensive patient care pathway

15-minute interactive learning modules on disease state and care pathway for all healthcare professionals treating hypertension.

Learning modules offer curriculum for hypertension healthcare professionals of all experience levels. Modules include courses, videos, downloadable resources, and assessments to help you achieve your training goals.

- Module 1 – Diagnosis and Treatment Strategies
- Module 2 – Establishing a Pathway to Enhance HTN Patient Care
- Module 3 – Uncontrolled HTN: Addressing Inequities of Care
- Module 4 – Impacts of Uncontrolled HTN on the Healthcare System
- Module 5 – Complexities in HTN  

Please check back regularly to view new modules and additional content

Click to view course
Addressing HTN webinar series

**Audience:** any healthcare provider/worker that has a touch point in the hypertensive patient care pathway

Seven-part webinar series will provide an overview of the current hypertension landscape in the United States. Through 30-minute programs, the series will dive into the patient journey with hypertension, and will also cover the benefits of establishing a patient care pathway.

- Webinar 1 – U.S. Hypertension Epidemic: A Need to Act
- Webinar 2 – Diagnosis and Treatment Strategies
- Webinar 3 – Establishing a Pathway to Enhance Hypertension Patient Care
- Webinar 4 – Uncontrolled Hypertension: Addressing Inequities of Care
- Webinar 5 – Impacts of Uncontrolled Hypertension on the Healthcare System
- Webinar 6 – Complexities in Hypertension
- Webinar 7 – Hypertension Care: Bringing It All Together

Check back regularly to view newly archived webinars and additional content
**Customer-facing resources:** Medtronic Academy, website, and social media

---

**Coronary Corner**

Bookmark Coronary Corner on Medtronic Academy to easily access all on-demand education and training covering the latest PCI considerations and techniques. Leverage complimentary resources, including webinar recordings, learning plans for contact hours, case studies, and more to support your U.S. coronary program.

**CV Solutions**

Visit the CV Solutions webpage on Medtronic.com to view summaries highlighting the latest education and training opportunities. Easily navigate directly to corresponding pages on Medtronic Academy. **No login required.**

---

**Hypertension Headquarters**

Hypertension Headquarters offers all-inclusive, on-demand education for all things relating to HTN: archived webinars with HTN KOLs, contact hour-based modules, and information to help healthcare professionals not only understand the gravity of the HTN crisis, but what they can do to help. Bookmark this page and visit periodically so you can stay up to date on the latest educational offerings and enhance your hypertension expertise.

**Social media**

Follow our Twitter and LinkedIn accounts to ensure you stay aware of the latest PCI education and training offerings, as well as product information, conference updates, and clinical evidence.
The safety and effectiveness of the Resolute Onyx™ stent have not been established in the cerebral, carotid, or peripheral vasculature. Additionally, the safety and effectiveness of using antithrombotic devices with Resolute Onyx™ stent have not been determined for prevention of acute or chronic thrombotic heart disease due to de novo lesions of length ≤ 35 mm in native coronary arteries with reference vessel diameters of 2.0 mm to 5.0 mm. In addition, the Resolute Onyx Coronary Stent System is indicated for treating de novo chronic total occlusions and non-left main bifurcation lesions utilizing the provisional bifurcation stenting technique.

Contraindications

- Patients with a known hypersensitivity or allergies to aspirin, heparin, bivalirudin, clopidogrel, prasugrel, ticagrelor, ticlopidine, drugs such as zotarolimus, tacrolimus, sirolimus, everolimus, or similar drugs or any other analogue or derivative. Patients with a known hypersensitivity to the cobalt-based alloy (cobalt, nickel, chromium, and molybdenum) or platinum in the Resolute Onyx™ ZOTAROLIMUS-polymers or its individual components.
- Patients with severe valve disease, acute myocardial infarction, unstable angina, or high bleeding risk, with symptomatic ischemic heart disease due to de novo lesions of length ≤ 35 mm in native coronary arteries with reference vessel diameters of 2.0 mm to 5.0 mm. In addition, the Resolute Onyx Coronary Stent System is indicated for treating de novo chronic total occlusions and non-left main bifurcation lesions utilizing the provisional bifurcation stenting technique.

Warnings

- Please ensure that the inner package has not been opened or damaged as this would indicate the sterile barrier has been breached. The use of this product carries the same risks associated with coronary artery stent implantation procedures, which include subacute and late vessel thrombosis, vascular complications, and/or bleeding events. This product should not be used in patients who are not likely to comply with the recommended antiplatelet therapy.

Precautions

- Only physicians who have received adequate training should perform implantation of the stent.
- Subsequent stent restenosis or occlusion may require repeat catheter-based treatments of previously implanted stents is not well characterized. The risks and benefits of the stent implantation should be assessed for patients with a history of bleeding complications. The effects of potential drug interactions on the safety of patients who are unable to tolerate long-term DAPT after PCI have been published.

Based on the Onyx ONE Clear Analysis, Resolute Onyx is safe and effective in patients at high risk of bleeding treated with one month of DAPT. The patients evaluated in the Onyx ONE Clear Analysis met the predefined criteria for high bleeding risk and were those whom the physician, the patient, and the patient’s treating physician(s), the antiplatelet therapy should be restarted as soon as possible.

Following PCI, if elective noncardiac surgery requiring suspension of antiplatelet therapy is considered, the risks and benefits of the procedure should be carefully evaluated with the patient, whether DES and its associated recommended DAPT regimen is the appropriate PCI choice.

Instructions for Stenting of Bifurcation Lesions

The provisional technique of bifurcation stenting recommends a single stent placement in the Main Vessel (MV), finalized with proximal optimization technique (POT). POT includes performing post-dilatation to achieve full apposition of the stent to the bifurcation and reduce the risk of side branch (SB) compromise.

Potential Adverse Events

Other risks associated with using this device are those associated with percutaneous coronary diagnostic (including angiography and IVUS) and treatment procedures. These risks include but are not limited to: Abrupt vessel closure; Access site pain, hematoma, or hemorrhage; Allergic reaction (to contrast, antiplatelet therapy, stent material, or drug and polymer coating); Anaphylaxis, pseudoanaphylaxis, or arteriosclerotic fistula (AVF); Artrythmias, including ventricular fibrillation; Balloon rupture; Bleeding; Cardiac tamponade; Coronary artery occlusion, perforation, rupture, or dissection; Coronary artery spasm; Death; Embolism (air, tissue, device, or thrombus); Emergency surgery, peripheral vascular or coronary bypass; Failure to deliver the stent; Hemorrhage requiring transfusion; Hypotension/Hypertension; Incomplete stent apposition; Infection or fever; MI; Paracarditis; Peripheral ischemia; Peripheral nerve injury; Renal failure; Restenosis of the stented artery; Shock/pulmonary edema; Stable or unstable angina; Stent deformation, collapse, or fracture; Stent migration or embolization; Stent misplacement; Stent rupture or intrastent thrombosis; Thrombosis (acute, subacute, or late)