HOW LONG DO I TAKE THIS?

THE ANSWER USED TO BE TWELVE MONTHS · FOR EVERYBODY

Two drugs keep a clot off a fresh stent. Both of them make you bleed. **The whole argument is about when you can put one of them down.**

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How long do I have to take this blood thinner? It is one of the questions I hear most in my Encinitas clinic after a stent. The answer used to be easy. Twelve months, for everybody, and the conversation was over in a minute.

That is no longer the right answer for most patients. The 2023 AHA/ACC/ACCP chronic coronary disease guideline, the 2024 ESC chronic coronary syndrome guideline and a run of large trials now support much shorter dual therapy followed by a single drug. These pages are the printable version of my article on all of it. Bring them to your next visit.

6

MONTHS, STABLE DISEASE

The default after a stent placed for stable coronary disease.

12

MONTHS, AFTER A HEART ATTACK

The default after acute coronary syndrome. Both defaults can be shortened.

1

MONTH, HIGH BLEEDING RISK

Safe per MASTER DAPT, then a single antiplatelet drug.

Why two drugs instead of one?

TWO DOORS INTO ONE PLATELET

WHAT IT IS. Dual antiplatelet therapy, DAPT for short, pairs aspirin with a P2Y12 inhibitor: clopidogrel (Plavix), ticagrelor (Brilinta) or prasugrel (Effient). The job is to stop a clot forming on the stent before your artery has healed over it, and to cut the chance of another coronary event.

WHY A STENT NEEDS IT. The metal scaffold is a foreign surface sitting in your bloodstream. The lining of the artery grows over the struts across weeks to months. Until that cover is complete, exposed metal can set platelets clumping and a clot forming on the stent itself. That event, stent thrombosis, usually arrives as a heart attack, often a large one, and the mortality is meaningful. Preventing it is the reason DAPT exists.

TWO SEPARATE SWITCHES. Aspirin blocks cyclooxygenase-1, shutting down one activation signal. The P2Y12 drugs block the ADP receptor, which drives a different loop. Together they quiet the platelet more completely than either drug alone, and that is what brings stent thrombosis and repeat events down. The trade is bleeding. Those same platelets are what stop the bleeding from a cut, from an irritated stomach lining, and from the small vessels at a surgical or dental site.

WHY THE CLOCK GOT SHORTER

Newer stents heal over faster than old ones

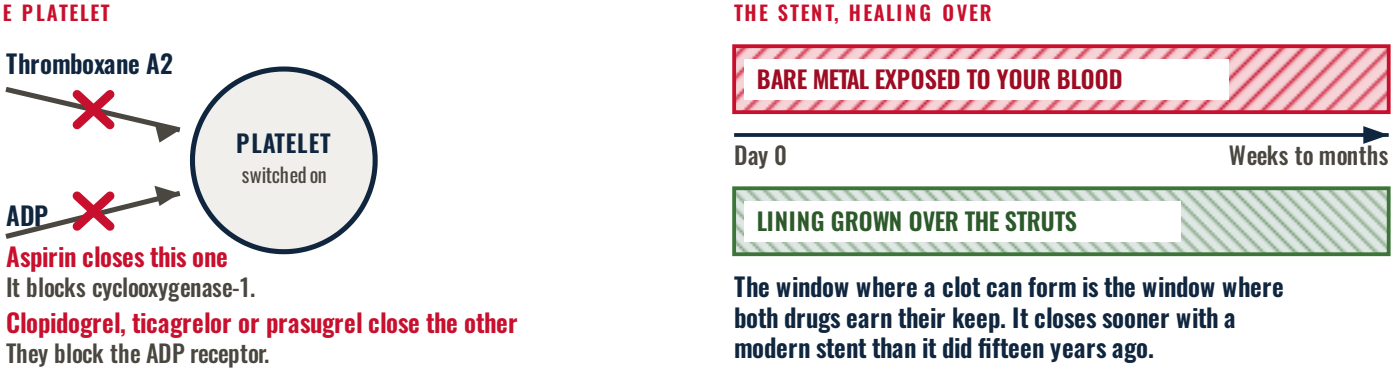
Second and third generation drug-eluting stents heal faster than the older devices, and that is the biological reason DAPT durations have come down.

The platforms in use now (Xience, Resolute Onyx, Synergy, Orsiro) have thinner struts, more biocompatible polymers, and a shorter stretch of incomplete healing.

The thrombosis risk falls away sooner. Less DAPT buys the same protection.

FIGURE 1

TWO DRUGS, TWO SWITCHES, ONE CLOT



A schematic of the two pathways and the healing window, not an anatomical drawing or a measurement.

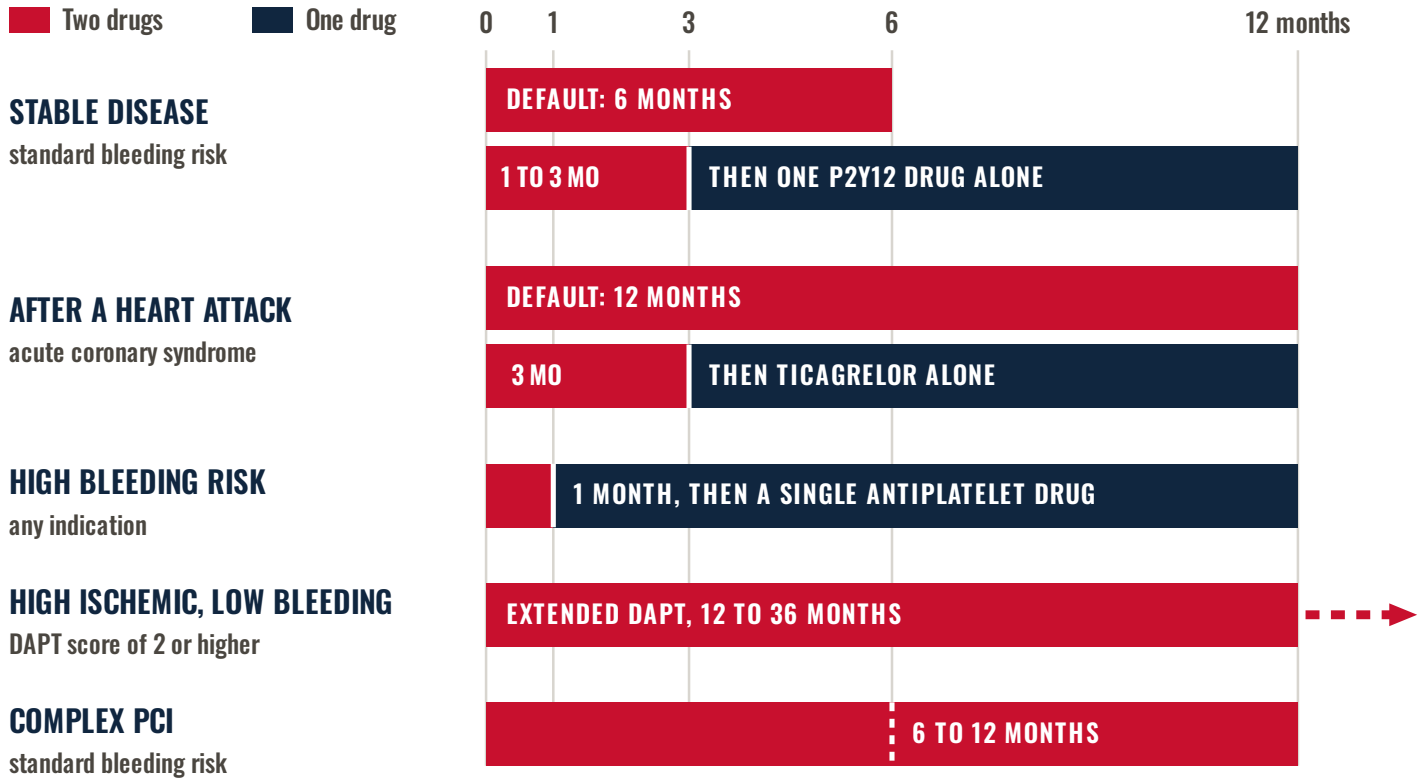
So how long is it for me?

THE NEW DEFAULTS

Six months for stable coronary disease. Twelve after a heart attack. Both can be shortened, and one to three months of dual therapy followed by a single P2Y12 drug is now a Class IIa option in the 2023 AHA/ACC/ACCP and 2024 ESC guidelines.

FIGURE 2

YOUR SITUATION SETS THE CLOCK



One to three months of dual therapy is acceptable in complex PCI too when bleeding risk is raised. High bleeding risk means a blood thinner for another reason, a recent major bleed, severe anemia, advanced kidney disease and the rest of the ARC-HBR list.

The move away from twelve months rests on several high quality randomized trials. Across all of them the finding is the same. In carefully selected patients with modern stents, a shortened course followed by a single P2Y12 drug cuts clinically meaningful bleeding by 30 to 50 percent with no rise in stent thrombosis, heart attack or death.

Both ends of the spectrum still exist. A complex procedure, a recent heart attack and no bleeding problem: twelve months stands, and it may run longer. A patient at high bleeding risk: one month of dual therapy followed by a single drug is well supported.

What actually changed the guidelines?

THREE TRIALS

TWILIGHT, 2019. 7,119 high-risk stent patients, event free for three months, randomized to ticagrelor alone or ticagrelor plus aspirin for the next twelve months. Ticagrelor alone cut clinically meaningful bleeding by 56 percent, 4.0 percent against 7.1. Death, heart attack or stroke landed at 3.9 percent in both arms. Where the stent had followed a heart attack, bleeding fell 53 percent with no sign of more clotting events.

STOPDAPT-2, 2019. 3,045 patients, one month of dual therapy then clopidogrel alone against twelve months of it. The short arm came out ahead on the combined endpoint of cardiovascular death, heart attack, stent thrombosis, stroke or major bleeding, 2.4 percent against 3.7. Its follow-up trial in heart attack patients failed to show clopidogrel alone was non-inferior, one reason ticagrelor is the preferred single agent there.

MASTER DAPT, 2021. 4,579 patients selected for high bleeding risk. Abbreviated dual therapy, a median of 34 days, against prolonged, a median of 192. Net adverse clinical events and major cardiac and cerebral events came out similar, with clearly less clinically relevant bleeding, hazard ratio 0.68. It established one month as safe at high bleeding risk whether or not the procedure was complex.

24,407 PATIENTS POOLED

The 2024 Lancet analysis, patient by patient

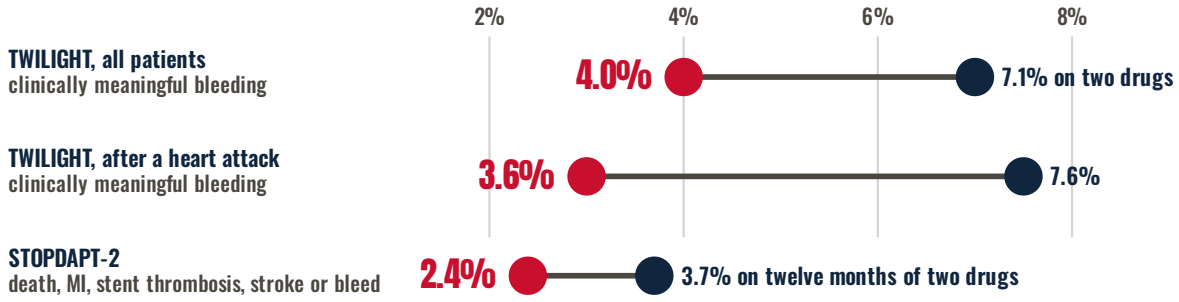
A 2024 individual patient-level meta-analysis pooled 24,407 patients across six randomized trials and confirmed the pattern.

A single P2Y12 drug after a short dual course, ticagrelor above all, was non-inferior for major cardiac and cerebral events and better on serious bleeding and on death from any cause.

It held whether or not the stent followed a heart attack, and in complex and non-complex procedures alike.

FIGURE 3

DROP THE ASPIRIN, DROP THE BLEEDING



Red marks the shortened strategy, navy the longer one. Bleeding definitions differ between trials, so compare the two ends of a line rather than one line against another.

What do the guidelines say now?

THE FRAMEWORK

The 2023 AHA/ACC/ACCP/ASPC/NLA/PCNA chronic coronary disease guideline and the 2024 ESC chronic coronary syndrome guideline agree on the core of it. Class I is a recommendation. Class IIa is reasonable. Class IIb may be considered.

STABLE CORONARY SYNDROMES

A stent placed outside a heart attack

1 **DEFAULT · CLASS I**

Six months of dual therapy, aspirin plus clopidogrel.

2 **SHORTER OPTION · CLASS IIA, LEVEL A**

One to three months of dual therapy, then a P2Y12 inhibitor on its own.

ACUTE CORONARY SYNDROMES

A stent placed for a heart attack or unstable angina

1 **DEFAULT · CLASS I**

Twelve months of dual therapy, aspirin plus a potent P2Y12 inhibitor, usually ticagrelor or prasugrel.

2 **SHORTER OPTION · CLASS IIA TO IIB**

Three months of dual therapy, then ticagrelor on its own.

HIGH BLEEDING RISK

Whatever the stent was placed for

One month of dual therapy, then a single antiplatelet drug. Class IIa, level of evidence B.

The criteria include prior major bleeding, active cancer, severe kidney dysfunction, a low platelet count, age over 75 with other factors, and a long-term need for oral anticoagulation. They sit in the ARC-HBR criteria and the PRECISE-DAPT score.

HIGH ISCHEMIC, LOW BLEEDING

The patients who may want more, not less

Extended dual therapy beyond twelve months, up to 36. Class IIb, level of evidence A.

The DAPT score, derived from the trial of the same name, is what sorts this out. Two or higher favors extending. Below two suggests the benefit is limited.

THREE NAMES WORTH WRITING DOWN

ARC-HBR

The checklist that decides whether you count as high bleeding risk. MASTER DAPT enrolled by it.

PRECISE-DAPT

A score for bleeding risk. Ask where you land on it before the duration conversation.

DAPT SCORE

Weighs clotting risk against bleeding risk at the twelve month mark. Two or higher favors staying on.

And which one do I stay on?

TICAGRELOR OR CLOPIDOGREL

Ticagrelor carries the strongest evidence as the drug you stay on after a short dual course, above all when the stent followed a heart attack. Clopidogrel on its own performed less consistently in those patients when the trials were compared head to head. In stable patients with lower clotting risk, clopidogrel alone is a reasonable choice, and it is often the one made, on cost and on dosing.

The 2024 patient-level analysis in the Lancet took this on directly. When the dual course is shortened, ticagrelor alone met non-inferiority for major cardiac and cerebral events and came out better for serious bleeding and for death from any cause, in patients whose stent followed a heart attack and in those it did not.

> *In my Encinitas practice I default to ticagrelor when we step down after a heart attack, and clopidogrel for stable patients who finished their course without trouble.*
>
> DR. DAMIAN RASCH, D.O.

1 **TICAGRELOR · BRILINTA**

Twice daily, more expensive, and the strongest outcome data of the three. Shortness of breath is a known side effect, mild in most people, and it settles as you keep taking it. No genetic test needed.

2 **CLOPIDOGREL · PLAVIX**

Once daily and inexpensive. About 30 percent of people carry a CYP2C19 variant that makes it work less well. Poor metabolizers whose stent followed a heart attack may do better on ticagrelor.

3 **PRASUGREL · EFFIENT**

Rarely used on its own outside the acute setting. Off the table after a stroke or a TIA, at 75 or older, or under 60 kilograms.

WHAT TO TRADE, AND WHAT NOT TO

Twice-daily dosing is a problem for you	**Say so. Clopidogrel is once daily.**
The cost of ticagrelor is the real obstacle	**Say so before you start skipping doses.**
You feel short of breath on ticagrelor	**Tell me. It is usually mild and settles.**
Your stent followed a heart attack	**Ticagrelor is the better-evidenced single agent.**

ONE NUMBER TO ASK ABOUT

The CYP2C19 loss-of-function variant

Roughly 30 percent of patients carry a version of the CYP2C19 gene that blunts clopidogrel. If your stent followed a heart attack and you are identified as a poor metabolizer, ticagrelor may be the better drug for you. Ticagrelor does not depend on that enzyme, so it needs no genotyping at all.

Mine was a complicated job. Does that change it?

COMPLEX, AND STILL SHORT

No, not enough to override the bleeding against clotting calculation. A complex procedure on its own no longer justifies a long dual course in a patient who bleeds easily.

WHAT COUNTS AS COMPLEX

1 THREE OR MORE VESSELS
Stents placed in three or more of your coronary arteries.

2 THREE OR MORE STENTS
Or a total stent length over 60 millimeters.

3 A FORK, OR A CLOSED ARTERY
A branch point needing two stents, or a vessel that had been completely blocked.

Complex procedures were felt for years to need a longer dual course, on the reasoning that the absolute risk of stent thrombosis runs higher. A 2023 patient-level meta-analysis of 22,941 patients tested that directly.

A single P2Y12 drug after one to three months of dual therapy gave similar protection against clotting events and cut serious bleeding by about half, whatever the complexity of the procedure. The MASTER DAPT sub-analysis in complex patients at high bleeding risk found the same thing.

A complex procedure still earns closer follow-up and a lower threshold for taking a new symptom seriously. What it no longer does by itself is set the length of your prescription.

ASK FOR THE PROCEDURE DETAIL

It belongs in your own notes

How many vessels were treated, how many stents went in, and roughly how much total stent length.

Whether a branch point needed two stents, and whether any artery was completely blocked before the procedure.

Which stent platform you have. It goes on the card you were sent home with.

22,941 PATIENTS, AND THE TWO GROUPS CAME OUT THE SAME

0.51
COMPLEX PROCEDURES
Hazard ratio for serious bleeding on one drug against two. About half as much.

0.49
EVERYONE ELSE
The same hazard ratio in patients whose procedure was not complex.

0.92
INTERACTION P VALUE
A statistical way of saying complexity made no difference to the benefit.

Is there anyone who should stay on longer?

WHEN LONGER WINS

Extending dual therapy from twelve months out to 36 buys fewer clotting events and costs more bleeding. It suits patients whose clotting risk runs high and whose bleeding risk runs low, and the DAPT score is what identifies them.

THE DAPT TRIAL, 2014. Going from twelve months to thirty cut stent thrombosis by 71 percent and heart attack by 53 percent. The price was moderate bleeding, 4.3 percent against 2.5, and a small mortality signal nobody has fully explained. The score that came out of that trial weighs the two sides against each other.

PARTHENOPE, 2025. This one tested a personalized duration guided by the DAPT score against a fixed duration for everybody. The personalized strategy cut net adverse clinical events by 20 percent, mostly by preventing clotting events without adding bleeding. It is the clearest endorsement so far of deciding duration patient by patient.

WHO THIS TENDS TO FIT

The profile that earns more, not less

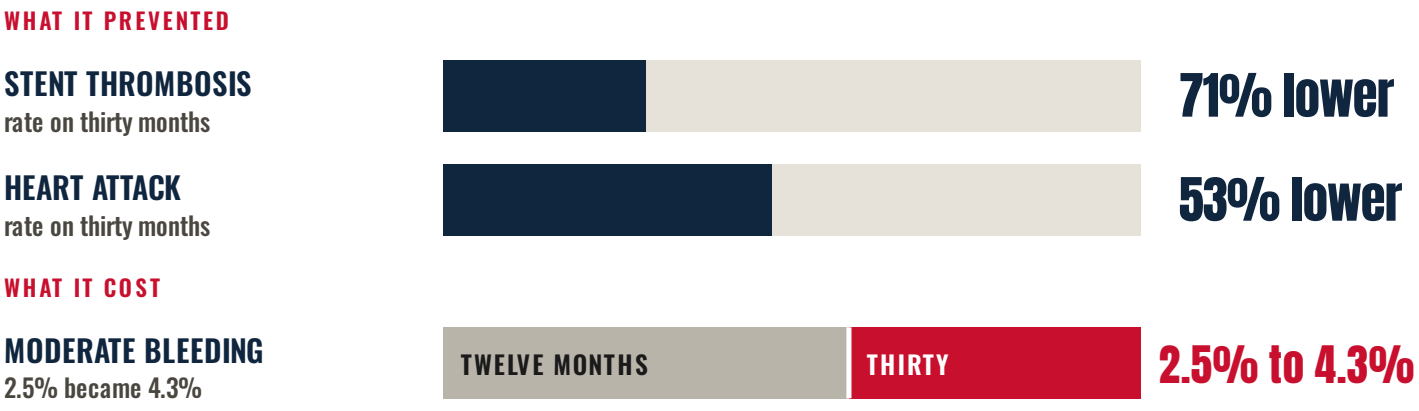
A prior heart attack. A complex procedure. Diabetes.

A bleeding profile that stays quiet, and twelve months of dual therapy already behind you without a bleeding event.

A DAPT score of 2 or higher. The score is available as an online calculator, and it turns a judgment call into a number you can talk about.

FIGURE 4

WHAT EIGHTEEN MORE MONTHS BOUGHT, AND COST



Roughly two extra moderate bleeds per hundred patients, set against the clotting events above. The DAPT score exists to tell you which side of that trade you are on.

The mortality signal in this trial was small and has never been explained.

Figures from the DAPT trial, which extended treatment from twelve months to thirty. Bar lengths are drawn to the percentages given in the trial.

How much should I worry about bleeding?

THE OTHER HALF OF THE LEDGER

Major bleeding after a stent carries a mortality that rivals another clotting event. It is not a trivial side effect.

1 NUISANCE BLEEDING

Easy bruising, cuts that run on, nosebleeds, bleeding gums. Universal at some level, and rarely needs anything done.

2 STOMACH AND BOWEL

The most common serious one. Often a hospital stay, a transfusion and a pause in treatment. An acid blocker is routine.

3 BLEEDING INTO THE BRAIN

Rare and devastating. Blood pressure control is your best defense against it.

4 URINARY AND VAGINAL

Usually less severe than a stomach bleed. It still needs looking into.

The two sides of this ledger are not mirror images. A patient who clots off a stent in month four is on a different road from one who has a major stomach bleed in month four. Both carry meaningful mortality. The treatment, the recovery and what they leave behind in daily life are all different.

Nuisance bleeding is the most common reason people quietly stop taking their pills, and stopping without a plan is one of the strongest predictors of stent thrombosis.

BLEEDING HAS ANSWERS

None of them is stopping alone

Shorten the course. The subject of these pages.

Switch the agent. Clopidogrel is gentler for some.

Add a stomach acid blocker. Omeprazole or pantoprazole cuts the risk without blunting the drugs.

Do not stop your medications on your own. Stopping in the first 90 days is one of the strongest predictors there is of a clot on your stent. If you are bleeding, or the cost has become the real problem, call me instead.

DR. DAMIAN RASCH, D.O.

What if I am already on a blood thinner, or I need an operation?

TWO SPECIAL CASES

AFIB AND A STENT

Patients already on an anticoagulant for atrial fibrillation or a mechanical valve who then need a stent usually get a P2Y12 inhibitor plus a DOAC such as apixaban now, in place of the old triple therapy.

AUGUSTUS, in 2019, randomized 4,614 patients with atrial fibrillation who had had a heart attack or a stent, to apixaban or warfarin and to aspirin or placebo. Apixaban bled less than warfarin, and the arm without aspirin bled less with no rise in clotting events.

That reshaped practice. Drop the aspirin early, within days to a month, and carry a DOAC plus a P2Y12 inhibitor, usually clopidogrel. I work this out with the interventional cardiologist, and how long the pair runs depends on your bleeding risk, your clotting risk and why you are anticoagulated.

SURGERY WHILE YOU ARE ON IT

Elective surgery should wait when it can. At least six months after a drug-eluting stent, at least three for something semi-elective. The risk of a clot forming on the stent during surgery is highest in the first weeks and falls off from there.

For an operation that cannot wait, continue the aspirin, which is rarely the drug driving the bleeding, and hold the P2Y12 inhibitor. Five days for clopidogrel and ticagrelor, seven for prasugrel, with surgery, anesthesia and cardiology all talking to each other.

A few procedures bleed badly enough that both drugs come out: neurosurgery and posterior chamber eye surgery. Bridging with a short-acting intravenous antiplatelet drug is used occasionally at large centers, and the evidence behind it is thin.

FIGURE 5

THE WEEK BEFORE AN OPERATION

The plan for an operation that cannot be postponed. Nobody holds anything on their own reading of this page.

Can I have surgery while on DAPT?

Elective surgery should generally wait at least six months after a drug-eluting stent. Semi-elective surgery may go ahead at three. For surgery that cannot wait, aspirin is usually continued and the P2Y12 inhibitor held for five to seven days, with careful coordination across the teams.

What if I have atrial fibrillation and a stent?

You probably do not need triple therapy. Modern practice, per AUGUSTUS, is a P2Y12 inhibitor plus a DOAC such as apixaban, with the aspirin dropped within days to a week of the stent. That cuts bleeding sharply with comparable protection against clotting.

BEFORE YOUR NEXT VISIT

SIX QUESTIONS TO BRING

I tell my patients to bring these to every follow-up. Duration is not settled once. It gets reassessed every time we sit down.

1 HAVE I BLED SINCE LAST TIME?

Nuisance or otherwise. Bruises and gums count. This is the question that most often changes the plan.

2 ANY CHEST PAIN OR NEW SYMPTOMS?

Anything that might mean the muscle is not getting the blood it wants.

3 ANYTHING COMING UP?

Dental work, an endoscopy, an operation. Tell me before it is booked, not after.

4 ANY NEW MEDICATION?

Including anything a different doctor started, and anything you buy off a shelf. Some of them interact.

5 IS THE SCHEDULE WORKING?

Once a day against twice a day for ticagrelor. A dose you keep forgetting is a real problem, not a small one.

6 IS THERE A COST ISSUE?

Say it out loud. Cost is one of the common reasons people stop, and it has answers.

AND ONE THING NOT TO DO

Do not stop either drug on your own to see what happens. Stopping without a plan is one of the strongest predictors of a clot forming on your stent, and the first sign of that can be a heart attack.

Tell me the real problem instead. You are bruising everywhere, the cost is absurd, your dentist told you to hold it, the evening dose keeps slipping. Every one of those has an answer.

THE DECISION IS NOT PERMANENT

Why this comes up at every visit

The right duration today may not be the right duration in three months. New bleeding, a new diagnosis, a new medication, an operation on the calendar. Any of them moves the answer.

Treat the conversation about how long you stay on these drugs as a standing item, not a decision that was made once on a discharge summary.

The things patients ask me most

YOUR QUESTIONS

How long do I need to take both aspirin and Plavix, or Brilinta, after my stent?

Six months if the stent was placed for stable coronary disease, twelve if it followed a heart attack or unstable angina. For many patients that can now be shortened to one to three months of the pair, then a single P2Y12 inhibitor, ticagrelor or clopidogrel, under the 2023 to 2024 guidelines. Your bleeding risk, your clotting risk and how well you tolerate the drugs decide it.

Can I stop one of them on my own if I am bleeding?

No. Stopping without a plan is one of the strongest predictors of a clot on the stent, which can cause a heart attack. Call your cardiologist first. There is almost always a structured way to bring the bleeding risk down that is safer than stopping on your own.

What is the difference between Plavix, Brilinta and Effient?

Plavix (clopidogrel) is the oldest and the least potent of the three. Brilinta (ticagrelor) is more potent, taken twice a day, and carries the strongest evidence after a heart attack and as the drug you stay on alone. Effient (prasugrel) is also potent, and it is off the table after a stroke, at 75 or older, or under 60 kilograms. Each has its own role.

Do I need a stomach acid blocker on these?

Often yes. In particular with a history of a stomach or bowel bleed, on regular anti-inflammatory pills, with an H. pylori infection, or over 65. A proton pump inhibitor cuts that bleeding risk without meaningfully blunting the antiplatelet effect. Pantoprazole is preferred alongside clopidogrel because it interferes less with the same enzyme.

How long do I take aspirin once the course ends?

Most patients stay on aspirin indefinitely after a stent unless something specific rules it out. Aspirin on its own is the long-term regimen for most people with coronary artery disease. Some patients on the newer step-down pathways finish the other way around, staying on the P2Y12 inhibitor rather than the aspirin.

What is a DAPT score?

A calculator that weighs your clotting risk against your bleeding risk at the twelve month mark, to decide whether staying on out to thirty or 36 months is right for you. Two or higher favors extending, below two suggests the benefit is limited. The 2025 PARTHENOPE trial showed that duration guided by the score beats a fixed duration for everybody.

A SHORT GLOSSARY, IN PLAIN WORDS

DAPT. Dual antiplatelet therapy. Aspirin plus one more antiplatelet drug.

P2Y12 inhibitor. The second drug. Clopidogrel, ticagrelor or prasugrel.

Stent thrombosis. A clot forming on the stent itself. It usually arrives as a heart attack.

Drug-eluting stent. A stent coated with a drug that keeps the artery from renarrowing.

Monotherapy. One antiplatelet drug rather than two. The destination of every short course.

De-escalation. Stepping down from two drugs to one on purpose, with a plan.

ARC-HBR. The checklist that decides whether you count as high bleeding risk.

DAPT score. A number that weighs your clotting risk against your bleeding risk.

Complex PCI. Three or more vessels or stents, over 60 mm of stent, a fork, or a blocked artery.

THE BOTTOM LINE

NOT ONE SIZE. NOT ANYMORE.

The 2023 AHA/ACC/ACCP and 2024 ESC guidelines actively support a shorter dual course followed by a single P2Y12 inhibitor, usually ticagrelor, for a large number of patients. Six months stays the default for stable disease and twelve after a heart attack, and the abbreviated strategies are well supported and now Class IIa.

At high bleeding risk, one month of the pair followed by a single drug is both safer and evidence-based. At high clotting risk with low bleeding risk and a DAPT score of 2 or higher, going out to 36 months can prevent events. The answer will not be the same for every patient. The conversation should happen at every visit.

IF YOU KEEP THREE THINGS FROM THESE PAGES

1. **KNOW BOTH OF YOUR RISKS BY NAME**
   Your bleeding risk and your clotting risk are two separate numbers, and every duration decision is made by weighing one against the other.

2. **ASK ABOUT STEPPING DOWN**
   Coming off one drug before the twelve month mark is now a guideline-supported option, not an experiment. Ask whether it fits you.

3. **NEVER STOP ON YOUR OWN**
   Call first. Bleeding, side effects and cost all have structured answers that are safer than quitting quietly.

Duration after a stent stopped being one size fits all some years ago. What replaced it is a conversation, held again at every visit, between the risk of a clot and the risk of a bleed.

TAKE THIS PAGE TO YOUR DOCTOR

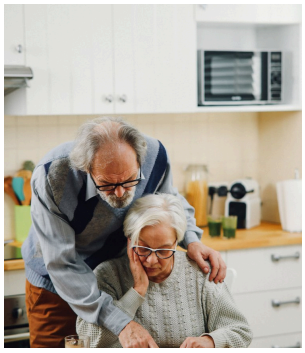
Four questions that decide your duration

What is my bleeding risk? By the ARC-HBR criteria and the PRECISE-DAPT score.

What is my clotting risk? My DAPT score, whether my stent followed a heart attack, and how complex the procedure was.

Can we step down to one drug before twelve months?

Which drug should that be for me, ticagrelor or clopidogrel?



The full article, with every study linked, is at **damianrasch.com/dapt-after-pci**.

Where every number in this guide came from

THE EVIDENCE

1. Virani, Salim S., L. Kristin Newby, Suzanne V. Arnold, et al. "2023 AHA/ACC/ACCP/ASPC/NLA/PCNA Guideline for the Management of Patients With Chronic Coronary Disease." *Journal of the American College of Cardiology* 82, no. 9 (2023): 833–955.
2. Mehran, Roxana, Usman Baber, Samin K. Sharma, et al. "Ticagrelor with or without Aspirin in High-Risk Patients after PCI." *New England Journal of Medicine* 381, no. 21 (2019): 2032–2042.
3. Watanabe, Hirotoshi, Takenori Domei, Takeshi Morimoto, et al. "Effect of 1-Month Dual Antiplatelet Therapy Followed by Clopidogrel vs 12-Month Dual Antiplatelet Therapy on Net Adverse Clinical Outcomes." *JAMA* 321, no. 24 (2019): 2414–2427.
4. Valgimigli, Marco, Enrico Frigoli, Dik Heg, et al. "Dual Antiplatelet Therapy after PCI in Patients at High Bleeding Risk." *New England Journal of Medicine* 385, no. 18 (2021): 1643–1655.
5. Valgimigli, Marco, Sung-Jin Hong, Felice Gragnano, et al. "De-escalation to Ticagrelor Monotherapy Versus 12 Months of Dual Antiplatelet Therapy in Patients With and Without Acute Coronary Syndromes." *Lancet* (2024).
6. Lopes, Renato D., Gretchen Heizer, Ronald Aronson, et al. "Antithrombotic Therapy after Acute Coronary Syndrome or PCI in Atrial Fibrillation." *New England Journal of Medicine* 380, no. 16 (2019): 1509–1524.
7. Mauri, Laura, Dean J. Kereiakes, Robert W. Yeh, et al. "Twelve or 30 Months of Dual Antiplatelet Therapy after Drug-Eluting Stents." *New England Journal of Medicine* 371, no. 23 (2014): 2155–2166.
8. Yeh, Robert W., Eric A. Secemsky, Dean J. Kereiakes, et al. "Development and Validation of a Prediction Rule for Benefit and Harm of Dual Antiplatelet Therapy Beyond 1 Year After Percutaneous Coronary Intervention." *JAMA* 315, no. 16 (2016): 1735–1749.
9. Gragnano, Felice, Roxana Mehran, Mattia Branca, et al. "P2Y12 Inhibitor Monotherapy or Dual Antiplatelet Therapy After Complex Percutaneous Coronary Interventions." *Journal of the American College of Cardiology* (2023).
10. Piccolo, Raffaele, Paolo Calabrò, Greta Carrara, et al. "Personalized or Standard Duration of Dual Antiplatelet Therapy After Percutaneous Coronary Intervention." *Journal of the American College of Cardiology* (2025).
11. Byrne, Robert A., Xavier Rossello, J. J. Coughlan, et al. "2023 ESC Guidelines for the Management of Acute Coronary Syndromes." *European Heart Journal* 44, no. 38 (2023): 3720–3826.
12. Vrints, Christiaan, Felicita Andreotti, Konstantinos C. Koskinas, et al. "2024 ESC Guidelines for the Management of Chronic Coronary Syndromes." *European Heart Journal* 45, no. 36 (2024): 3415–3537.

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READ IT ONLINE

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Photographs from Pexels.

Figures 1, 2 and 5 are illustrations drawn to show a pattern rather than recordings or measurements from a patient. The above information was composed by Dr. Damian Rasch, drawing on individual insight and bolstered by digital research and writing assistance. The information is for educational purposes only and does not constitute medical advice. It is not a substitute for consultation with your own physician.