



# IMPROVING CARDIOVASCULAR RISK COMMUNICATIONS

## TRANSFORMING THE CONVERSATION TO EMPOWER OUR PATIENTS

This Toolkit, *Improving Cardiovascular Risk Communications*, was developed by the American College of Cardiology to provide practical guidance on how to effectively communicate risk and make it meaningful to and actionable for patients. It was created with input from a multidisciplinary team of health care professionals and health communications experts and informed by insights shared by people at risk for or living with various forms of cardiovascular disease.

### WHO CAN USE THESE RESOURCES?

This Toolkit can be used by the entire cardiology care team, as well as primary care providers.

- Physicians
- Social Workers
- Primary Care Providers
- Other members of the care team
- Nurses
- Mental Health Professionals
- Pharmacists

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# THE CASE FOR IMPROVING RISK DISCUSSIONS

Risk. It's ubiquitous to cardiovascular disease. In fact, risk enters into most clinical discussions with patients, whether it's coaching them on primary or secondary cardiovascular disease prevention or presenting the risks and benefits of lifestyle, medications, interventional or surgical approaches. Recent guidelines and evolving cardiovascular risk prediction tools – for example, the atherosclerotic cardiovascular disease (ASCVD) and CHA2DS2-VASc risk estimators – further prioritize effective clinician-patient risk discussions as central to quality cardiology care.

Risk can also mean different things to different people. Certainly, how well our patients understand their personal cardiovascular risk(s) is integral to shared decision-making, patient choice and the degree to which they feel empowered and equipped to initiate and follow through with evidence-based treatment(s).

But risk is a complex concept for most people to comprehend, especially when discussed on the heels of a new diagnosis or when faced with the realities of a necessary treatment or procedure. Health risks are related to potentially negative outcomes. They are often associated with strong emotions because they represent diverging paths for a person's future wellbeing: wellness versus illness, independence versus disability or life versus death.

**These conversations are challenging, they take time and can always be improved.** As clinicians, the onus is on us to put cardiovascular risk into perspective for our patients by:

- Explaining it in simple terms,
- Making it meaningful to each patient and his or her unique set of circumstances, and
- Assessing their understanding of what is needed to manage their risk as much as possible.

Yet, resources, training and best practices don't give adequate direction about how to effectively communicate cardiovascular risk so that patients have a firm grasp of their personal risk(s) and feel prepared to improve their cardiovascular health. Closing this gap is critically important to optimizing quality patient care and improving cardiovascular outcomes.

**This Toolkit is designed to improve cardiovascular risk conversations to make them more efficient and ensure these communications have greater resonance and impact within the patient experience.**

Closing the gap in terms of how risk is explained is critically important and should be approached through the lens of the patient and his/her individual experience.



## WHERE RISK ENTERS IN

As risk is germane to nearly every clinical encounter about cardiovascular disease, the need for effective risk discussions spans a range of scenarios, including:

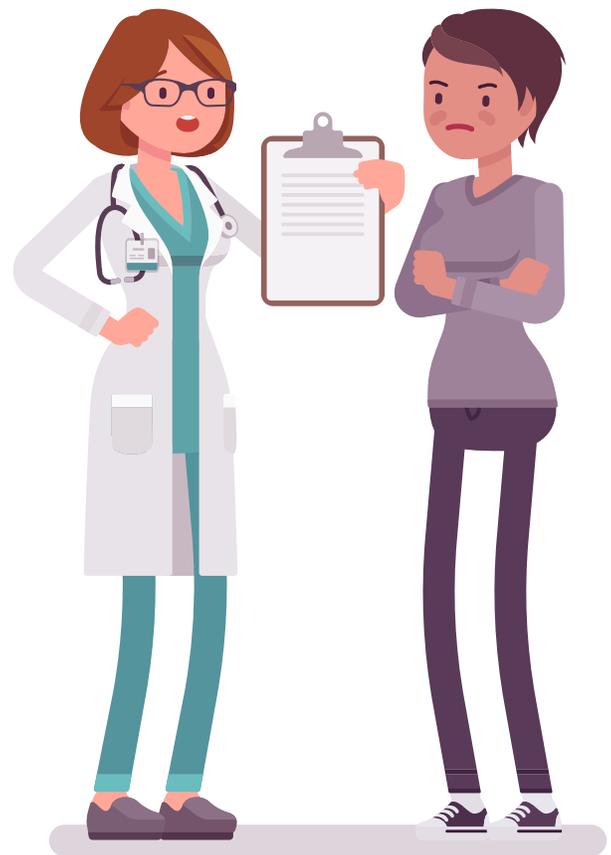
- A person's risk or probability of developing cardiovascular disease or having a cardiac event (primary prevention)
- A person's risk of having a repeat myocardial infarction or stroke or progressive disease (secondary prevention)
- Risks (of possible negative outcomes) and benefits of various treatments, including side effects, recovery and complications, and expected risk reductions (e.g., cardiac events prevented in 10 years if on a statin)
- Risk of cardiovascular events, even with treatment
- Risk(s) of no treatment

Assessing someone's cardiovascular risk and educating them about their personal risk is essential for optimal primary and secondary cardiovascular disease prevention planning. In addition, patients must understand that nearly every treatment has risks that must be weighed and considered, as does the decision not to take any action to modify or change cardiovascular risk. For example, individuals with earlier stages of hypertension or hyperlipidemia are frequently asymptomatic and may not understand the true impact of these conditions. As such, it may be challenging to effectively impart the magnitude of the risk to their future cardiovascular health and spur them to adopt or intensify lifestyle changes or adhere to an anti-hypertensive or statin regimen.

**Effective risk communications should aim to give patients the information they need to make informed health decisions and motivate them to lead healthier lives. Of course, at the heart of any risk discussion is a patient's receptivity, understanding and acceptance of risk.**

Based on previous studies and shared patient experience, there are missed opportunities to effectively communicate risk related to cardiovascular disease prevention and treatment. Moreover, how we present risk information can significantly affect a patient's perception of risk.

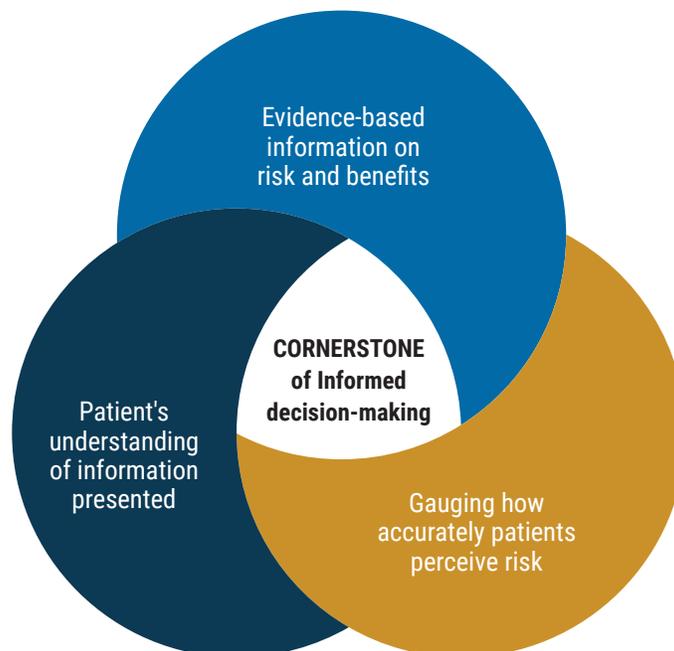
When risk isn't communicated well – or at all – it can cause undue harm. However, if it is presented in a way that is meaningful to and actionable for patients, it can serve as a key motivator to initiate and adhere to treatment plans.



# THE VALUE OF EFFECTIVE RISK COMMUNICATION

Overall, effective cardiovascular risk communications can:

-  Help patients make informed decisions
-  Foster patient engagement
-  Increase treatment adherence and promote sustained behavior change
-  Help patients watch for adverse events
-  Strengthen the patient-clinician relationship and facilitate reports of medical and non-medical barriers to care
-  Improve quality of care



Risk discussions are at the core of informed decision-making.

Source: adapted from BMJ, April 2012

# COMMON CHALLENGES TO EFFECTIVE RISK COMMUNICATION

Communicating risk is challenging for myriad reasons, including all the factors that can influence someone's understanding and perception of risk.

-  **Limited face time with patients.**
-  **Lack of effective cardiovascular risk communication training and skills development in medical school curriculum or continuing medical education.** Risk communications isn't something that is taught, yet so much of cardiology care is driven by assessment of risk.
-  **Risks is an abstract and multi-dimensional concept.** Most patients have a hard time understanding cardiovascular risk or retaining the information.  
  
Limitations in health literacy and numeracy among patients play a role as many patients are reluctant to admit a lack of understanding and ask for clarifications. Similarly, clinicians often do not assess and/or adapt how they deliver risk communications to an individual patient's literacy or numeracy level.
-  **Risk and benefits aren't always straightforward, especially in the presence of comorbidities.** In these cases, risk discussions are much more nuanced and should be informed by patient goals and helping them to sort through and weigh options.
-  **Overall, patients aren't very good at accurately estimating their cardiovascular risk, so there may be a disconnect between what they believe and what they are told.** People tend to under- or over-estimate their risk of cardiovascular disease and complications. Women, for example, consistently worry more about being diagnosed with cancer than cardiovascular disease, and only a small percentage can correctly identify symptoms that could signal a cardiac event
-  **Insufficient time or know-how on the part of the care team to adjust risk communications to account for the multiple factors that can affect a patient's acceptance or perception of risk.** (potential influencers are outlined on the next page.)

***The famous adage, "An ounce of prevention is worth a pound of cure" doesn't much matter if people don't understand the health information that helps them lower their personal disease risk. The reality is that when risk isn't communicated well or at all, it can cause undue harm.***

## KEY INFLUENCERS ON PATIENTS' PERCEPTION OF RISK



**Positive patient-clinician relationship built on trust.** Patients report that trust in their care team – especially the person who initiates cardiovascular risk discussions – is a critical component to their acceptance and understanding of risk, as well as their readiness to ask questions and share their preferences.

**Emotions.** Patients' emotional response to disease can define how they interpret risk and the degree to which they believe they can manage it. Research shows that anxiety, which understandably accompanies a diagnosis of cancer, cardiovascular disease and many other illnesses, is associated with misconceptions of risk.

Because many risk discussions occur in the context of a new diagnosis or progressive disease, whether it's heart failure, valve disease, coronary artery disease or atrial fibrillation, patients often feel frightened, out of control or overwhelmed. The first order of business is to validate the patient's emotions and talk through them. Once these emotions cool down, the patient can engage in making more complete decisions. Seeing risk through this emotional lens can help clinicians better understand

their patients and realize the importance of better tailoring risk discussions to the individual patient.

**Readiness to know more.** Some people may need time to digest and accept new medical realities before risk(s) (e.g., risk reduction, risks of treatments or of not taking action) can be fully understood.

Risk perception research finds that people are often more afraid of a risk when it's first presented. Unless patients have an emergent situation that requires immediate open-heart surgery or other interventional procedure, there may be some value in waiting until a follow up visit for more in-depth risk discussions

**Personality.** By nature, some people are more fatalistic, while others are more hopeful and optimistic. Some patients want to be equal partners in shared decision-making; others prefer to rely more on their medical team for guidance. Some patients are risk tolerant, while others are risk averse. Risk discussions should be informed by who the patient is on these dimensions.

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**Prior beliefs or experiences.** Patients may have family, neighbors or colleagues who have faced similar diagnoses or treatments and, as a result, those experiences may anchor their views.

**Lack of symptoms.** This may be the case, for example, with people with hypertension or high cholesterol, yet varying degrees of atherosclerotic disease could be evident.

**Competing priorities.** Other medical conditions and life demands can interfere with how someone interprets health information, as well as what they are able to commit to reducing their risk.

**How risk is presented.** Clinician's choices of how to present risk matters. Risk can be framed in different ways, which can invariably influence how it is perceived and what patients do with the information. For example, emphasis can be placed on:

- The losses of a particular screening, behavior change or treatment over the gains. For example, the risk of:
  - **Dying vs surviving (e.g. 3% mortality rate vs 97% survival rate)**
  - **Having a stroke vs not**
  - **Experiencing side effects vs not**
- Probability vs frequency.
- Relative vs absolute risks, which can affect how someone understands the magnitude of the difference. Research shows it's best to give both. For example:

Relative Risk
Medication X reduces the risk of stroke by 50 percent (it cuts the risk in half).
Absolute risk
Medication X reduces the risk of stroke from 2 chances out of (a 2% risk) 100 to 1 out of 100 (a 1% risk).

**How someone responds to risk may depend on:**

- How familiar they are with cardiovascular disease or treatments
- Their sense of control and beliefs about whether they can actually minimize harms to their heart or further disease progression
- Personal experience
- Anxiety level, risk tolerance

**Health literacy.** Even the simplest explanations of a disease risk or treatment can become exponentially more complicated and muddled by medical jargon. Health literacy has been defined as a person's ability to obtain, read, process and understand basic health information needed to make appropriate health decisions. People deemed to have lower health literacy tend to be more vulnerable to developing health problems and are less likely to recall or comprehend health information, including numbers.

To help patients digest cardiovascular risk information and subsequent recommendations, use simple language and follow up measures (e.g., teach back method) to assess their level of understanding. Research finds many clinicians believe that they are using simple language when, in fact, they are not. For additional tools, visit <https://www.cdc.gov/healthliteracy>.

**Numeracy.** Numeracy refers to the ability to understand and use numbers. Risk is fundamentally a mathematical concept so numbers, including frequencies, probabilities and percentages, often enter into discussions. Even measuring blood pressure and tracking the change(s) over time, taking daily weights and reading nutrition labels involve math.

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## Addressing Health Literacy Is Central to Improving Cardiovascular Risk Communications

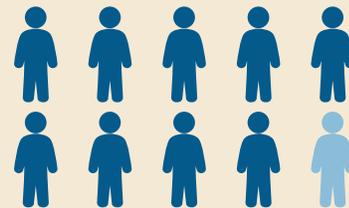
According to the U.S. Department of Human Services, Office of Disease Prevention and Health Promotion, health literacy can affect a person's ability to:

- Understand probability and risk
- Engage in self-care and chronic disease management
- Share personal information, including health history with care team
- Navigate the health care system, including filling out complex forms and locating services

People with limited literacy skills tend to have higher rates of chronic disease and are less able to optimally manage them. They are also more likely to:

- Skip preventive health screenings
- Report poor health
- Be sicker by the time they seek care
- Have higher rates of preventable hospitalizations
- Experience medical errors after leaving the hospital
- Lack health insurance

Nearly 9 out of 10 U.S. adults may lack the skills needed to manage their health and prevent disease, according to the National Assessment of Adult Literacy.



Who is most at risk for low literacy?

- Patients over 80 years of age
- Minority populations
- Those who are less educated (though even highly educated people can find health information, probabilities and risk difficult to understand)
- Anyone diagnosed with chronic, complex or comorbid health problems

Source: *Health Literacy and Health Outcome*, Office of Disease Prevention and Health Promotion, Institute of Medicine, Agency for Healthcare Research and Quality

# THE PATIENT PERSPECTIVE: WHAT RISK LOOKS LIKE

## A Process Built on Trust and Empathy

In many cases, discussions about risk are either

1. Not happening
2. They are not recognized as such by patients
3. Overwhelming and can be emotional too



Risk needs to be seen  
as a feeling.  
We feel it.



When understood, risk can serve as a call  
to action to take steps to change behavior  
to manage or mitigate heart issues.



I had been diagnosed with heart disease  
The numbers were very confusing....  
I felt scared.



There is a lot  
of information  
to process.



Clinicians think [risk] is a  
science, but we experience it  
as individuals, and in many  
different ways. It's emotional,  
and it also impacts our families  
and other aspects of our lives.



It's not just about choices, but  
transparency and honesty.



Sometimes patients are afraid to  
ask, for example, about the side  
effects of a medication.

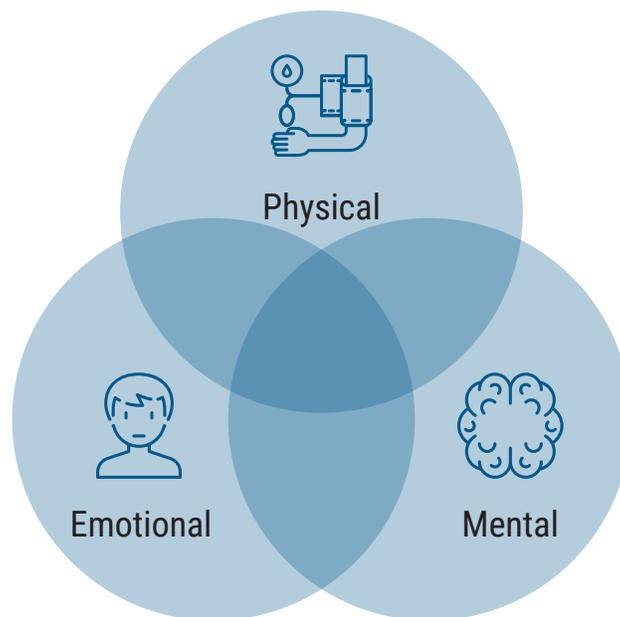
Many patients say that risk communications are not just about the information. Instead, it should be viewed as a process.

The first foundational step is having trust in the messenger. Equally, clinicians need to be:

- Thoughtful about how they communicate risk as this can affect the patient's perception of that risk
- Find ways to assess and understand individual patient goals, expectations, risk tolerance and motivators

And while risk prediction is guided by specific parameters, as well as the underlying science and evidence, for patients, risk discussions aren't solely about the facts and numbers. Risk can conjure up many emotions that need to be addressed as part of this process. **When patients feel listened to, validated and involved in their care, they are more apt to adhere to treatment plans and honestly report any challenges that might affect optimal outcomes.** Patients generally want the facts, but they also want clinicians to express encouragement, hope and empathy.

Risk communications cannot solely focus on someone's physical health. There are psychosocial and emotional effects too.



The full patient experience encompasses one's physical, emotional and mental wellbeing.

As well, health information provided under the duress of a new diagnosis is not likely to be remembered. In fact, studies show that patients often only remember the "gist" of risk discussions. Many patients will nod their heads, seemingly in agreement, but actually do not understand what was said or are too embarrassed to ask for clarification.

# TRUST – THE FOUNDATION OF EFFECTIVE RISK COMMUNICATIONS

Patients' ability to understand – and accept – health risk is closely tied to the trust they have in their health care team. But with the escalating pace of today's clinical practices, limited face time with patients and the unintended encroachment of technology on the usual clinician-patient interaction, it can be hard to build trust.

Here are some strategies to build or deepen trust with patients. You may already be doing many of these; others may not seem possible given the time demands of routine patient documentation and order entry. Still, renewing efforts to build trust can help save time in the long run as patients will feel more connected and engaged in their care and more likely to follow treatment recommendations.

## BACK TO BASICS – 8 WAYS TO BUILD TRUST AND COMPASSION

**1. Let empathy drive discussions.** We often fall into patterns of "telling" patients what they need to know about their cardiovascular disease risk, as well as risk-reducing interventions to protect or improve their future health. But taking time to put yourself in their shoes and be more attuned to their feelings and vantage point can help you tailor and guide these discussions so they are more meaningful. It can also reaffirm that you have their best interests at heart. For example, as soon as you walk in the room, ask the patient, "What would you like to talk about today?"

**2. Get to know patients and find common ground.** It's important for patients to feel cared about as a person and not just another case.

Ask questions about patients' lives outside of their cardiovascular risk or disease; take time to learn about their family and friends, pets, job, interests and hobbies. In doing so, you may:

- Discover shared interests that further deepen your connection (e.g., golf, travel, children of similar ages)
- Be more clued into natural motivators that may make a patient more inclined to take steps to take care of their cardiovascular health (e.g., needing to keep a job, caring for grandchildren, hobbies)

**3. Don't underestimate eye contact.** An unintended consequence of electronic medical records is that real-time documentation – and constant click throughs into a tablet or computer – further divides our attention. When patients

are in your office or exam room, try to sit down with them and look them in the eyes to reinforce your commitment to their care. There is nothing worse than feeling that your clinician isn't engaged or vested in your care. It also invariably affects patients' experience.

**4. Actively involve patients.** Research suggests that when patients play an active role in shared decision-making, they have better adherence and outcomes. Also be sure to ask questions to try to gauge awareness of their risk. For example, "What do you know about how high cholesterol can affect your heart over time?" or "What do you know about how much a statin can cut the likelihood that you will have a heart attack?" Patients often perk up and participate when they are part of the discussion



***Tell me and I forget, Teach me and I remember, Involve me and I learn.***  
***– Benjamin Franklin***



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5. **Anticipate – and make time – to answer questions.** Not all patients feel comfortable asking questions. Help by giving them an entry point. Asking open-ended questions like “Tell me what is concerning you most?” or “What questions do you have?” can help.
6. **Be transparent.** It's OK to say, “I don't know” or “It's not an exact science.” There is inevitable uncertainty when it comes to assessing or managing health risk.
7. **Enlist your staff.** Be sure that your staff greets patients politely, as you would like to be welcomed.
8. **Always follow through on promises made.** For example, if you tell a patient that someone will be calling to share test results, be sure to do so promptly using words that they can understand. And follow through even when there are no promises made. There should be a foolproof system in place to assure that test results are communicated in a timely fashion.



***How we understand risk, and how it's explained to us really can shape our decisions.***

*- Patient living with heart disease*



***Acceptance of risk is much more likely when it is explained by a trusted clinician.***

*- Patient living with heart disease*



# HOW TO TALK ABOUT RISK

While there is no one-size-fits-all approach to effective cardiovascular risk communications, there are some core principles that can be applied to improve patients' understanding.

1. Cardiovascular risk information should ideally be presented in a way that is:
  - Meaningful to the individual,
  - Easy to understand and
  - Nonjudgmental
2. Remember that how we present risk information to patients can influence their:
  - Perception of personal cardiovascular risk(s)
  - Feelings of control over their health
  - Decision(s) to act (or not act) on the information
3. Be purposeful in how you and your team explain cardiovascular risk information.

As part of the process, try to:

- **Gauge a patient's baseline perception of their personal cardiovascular risk** to help guide your message(s). Use ACC's patient tool, "What's My Risk of Heart Disease" to help gauge their personal understanding of CV risk and their confidence to take steps to lower their risk.
- **Tailor risk discussions** to where patients are in their journey, as well as their preference(s) for receiving information (i.e. some people want all of the facts and information upfront, while others may feel overwhelmed and wish to wait or defer to their care team).
- **Acknowledge patients' feelings** as these emotions play a prominent role in how patients assimilate heart risks and recommendations for risk reduction.
- **Assess a patient's willingness to actively manage their cardiovascular risk.** Find out what else is going on in their lives that might complicate their care.

Borrow motivational interviewing techniques and ask questions to assess individual patient goals, expectations, risk tolerance and motivators. Asking something like, "How is everything else going," or "What makes it hard for you

to take care of yourself/your heart health?" Do they have added demands of taking care of an aging parent, have trouble getting to medical appointments, are medication costs a concern?

- **Identify natural motivators** that might help a patient implement changes and adhere to risk reducing recommendations (e.g., their family or other support systems, upcoming life events, hobbies).
- **Anticipate challenges** that might interfere with cardiovascular risk reduction strategies (e.g., feasibility and commitment to making lifestyles changes, potential barriers to taking medications as prescribed). Don't forget to acknowledge non-traditional influencers, such as social determinants of health and the built environment (e.g., access to green space, sidewalks and other safe places to exercise, easy access to heart healthy foods, health care services and transportation).
- **Set realistic goals** that resonate with individual patient preferences and values
- **Ask patients to explain in their own words what they heard** both in terms of their risk of developing cardiovascular problems and what they can do to stay as healthy as possible/affect their risk
- **Provide ample opportunity for patients to openly ask questions** and keep in mind that nodding their heads doesn't always equate to understanding. Many patients admit to doing so despite having questions, but they may feel overwhelmed or embarrassed to ask.
- **Help connect the dots if they need peer support.** Patients say, "Talking to other patients who live with a particular diagnosis or have been through a procedure and are doing OK is 'like throwing someone a life preserver. I can do this!'"

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## RELAYING RISK – HOW DOES IT SOUND?

Not so great	
	<p>Your ASCVD risk score indicates you have a 9 percent chance of having a cardiovascular event in the next decade.</p>
Better	
	<p>We have tools to help us estimate how likely someone is to have a cardiac event – a heart attack or a stroke – in the next 10 years. Based on what we know today, your chance of having a heart attack or stroke is 9% – that means if you take 100 people just like you, 9 out of 100 would suffer an event in the next 10 years. That may not sound like many, but this is considered high risk for your age. I'd recommend...</p>
Ideal	
	<p>We have ways to estimate how likely you are to have a heart attack or a stroke. It helps us decide together what take steps you might need to take care of your heart.</p> <p>Based on what we know today, your chance of having a heart attack or stroke in the next 10 years is 9% – that means if you take 100 people just like you, 9 of them would suffer an event; the other 91 of them would not. That may not sound like many, but this is considered high risk for your age. Knowing what I know about you, I'd recommend [add treatment recommendations]. How do you feel about that? Do you have any questions?</p>

Read on for case studies and a checklist that gives more tips for how to make risk communications better.

# STRATEGIES FOR SUCCESS: PUTTING RISK COMMUNICATIONS INTO PRACTICE

Here we present four clinical scenarios and best practices for communicating risk that help put risk communications into practice. Fundamental to each is the need to check in with individual patients to be sure they understand what is being relayed and to assure their goals and preferences, as well as self efficacy to lower risks are assessed. These include:



## *Redefining Risk Discussions: Explaining ASCVD Risk Scores for Primary Prevention*

The 10-year ASCVD risk estimator is used to guide decision-making for many preventive interventions, including lipid and blood pressure management. Integration of this tool into clinical decision making has become second nature for clinicians. However, communicating the risks of a future ASCVD-related event and treatment options so that it is meaningful to patients is more complex and far from routine. Optimizing approaches so that patients understand prognosis and can participate in risk-based treatment decisions is critical for successful treatment. We present an example case to help illustrate the challenges and opportunities.



## *Redefining Risk Discussions: Atrial Fibrillation and Stroke*

For your patients with atrial fibrillation (AFib), the chance of having a stroke depends on other risk factors in addition to the AFib. Integration of the CHA2DS2VASc score into clinical decision making for those with nonvalvular AFib has become second nature for clinicians. However, communicating the risks of AFib and its treatments to patients is far from routine. Optimizing approaches to meaningful risk communication—so that patients understand prognosis and can participate in risk-based treatment decisions for stroke prevention—is a critical aspect of AFib care. We present an example case to help illustrate the challenges and opportunities.



## *Redefining Risk Discussions: Explaining Risk to Patients with Severe Aortic Stenosis*

Individual risk assessment and shared decision making based on the most up-to-date clinical evidence is an imperative conversation to have in patients with aortic stenosis. Engaging in meaningful risk communication allows patients to understand and participate in their treatment decisions and also helps them monitor for adverse events following their procedure.



## *Redefining Risk Discussions: Explaining Risks of Flu to Cardiac Patients*

According to research, effectively communicating to patients the risk associated with flu and CV disease is rated as one of the top challenges clinicians face during a patient visit. Unfortunately, only two-thirds of patients with cardiac disease receive the vaccine and the primary reason for failing to receive it is the patients' *lack of understanding* about their need for the vaccine. The ACC has created a risk communication tool to assist clinicians, nurses and pharmacists to clearly communicate these risks to patients. The tool shows a study case to help illustrate the challenges and opportunities. The ACC has also developed a patient fact sheet and infographic describing how the flu can impact heart disease. The patient tools can be accessed at [CardioSmart.org/Flu](http://CardioSmart.org/Flu).

# CHECKLIST FOR IMPROVING CARDIOVASCULAR RISK DISCUSSIONS

**Make risk communication meaningful to each patient.** With any risk discussion, pause and remember that each patient is unique. Discussions should be concordant with patients' values and preferences. Try to shape risk discussions to meet patients where they are in terms of their:

- Information needs and/or readiness to contemplate/make decisions and take action
- Experience, cultural background or beliefs
- Literacy level and ability to understand numbers

Lifetime risk of heart attack, stroke or related death may be a better motivator for younger patients whose more near-term risk may not be great enough to prompt initiation of efforts to reduce their cardiovascular risk.

**Put risk into context.** For example, a 10-year ASCVD risk score of 7.5 percent may sound small to some people, but it is the lower cut off for shared decision-making about whether to initiate a moderate- to high-intensity statin. Be sure to explain the score in simpler terms.

Patients with atrial fibrillation (Afib) should be educated about their vulnerability to stroke. They are five times more likely to suffer a stroke compared with those without a heart rhythm problem. And the types of stroke related to Afib tend to be more devastating than those from other causes. What does that mean? Without prophylactic anticoagulation, their odds of having a stroke that leaves them fully dependent on others are pretty high.

**Use simple, "plain" language and active listening.** Try to avoid medical terminology when possible. Provide educational materials like those at [CardioSmart.org](https://www.cdc.gov/healthliteracy/developmaterials/plainlanguage.html) to empower patients to learn more.

What is meant by "plain" language?

Instead of...	Try...
Adverse effect	Side effect or bad reaction
Anticoagulant	Medicine that thins the blood to keep it from clotting or clumping together
Cardiovascular	The heart and blood vessels
Circulation	Blood flow
Coronary arteries	Arteries, or fuel lines, that supply blood to the heart
Edema	Swelling from a build-up of fluid
Standard of care	Treatment most clinicians accept as reasonable based on evidence

For additional tools, visit <https://www.cdc.gov/healthliteracy/developmaterials/plainlanguage.html>.

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- ❑ **Use a combination of approaches when discussing cardiovascular risk or how certain treatments can measurably modify risk.** Each of us receives and processes information differently. Try to explain risk with words coupled with visual aids or written materials. Some examples of visual aids include pictographs, including Cate's Plot and icon arrays that use a shape – whether it's a circle, faces or people – to show a proportion, usually by shading or using color.

Studies of breast cancer survivors show that those who had a more accurate idea of their risk of recurrence also reported having clear risk discussions with their clinician in which they used both words and numbers.

Simple numbers are easier for most people to understand. When possible:

- **Use round numbers.** For example, if the risk of Disease X is 24.8 percent, use 25 percent.
- **Put this percentage into perspective** and explain it in more than one way. You can say, it is expected that 25 percent of people like you will develop Disease X. But some patients may understand this more: 1 out of 4 people like you will likely develop Disease X. With either approach, be sure to confirm over what period of time.

There is some research that shows 1 out of 4 is more likely to elicit an emotional response from patients, 25 percent is more abstract.

- **Present the relative and absolute risks.** Patients will often come in with news reports that tend to give the relative risks. But that's only one part of the story. For example:  
Relative risk: Medication B doubles the chance you will develop diabetes. That sounds scary!

**Absolute risk:** But if you present the actual numbers behind this statement, perhaps 3 out of every 10,000 patients develop the disease. If the risk doubles, that still means that only 6 out of every 10,000 patients who take the medication will develop this problem.

Here is another example:

Taking medication A can cut the chance that you will have a heart attack in the next 5 years by half. That sounds amazing!

But what if the risk was only 2 percent to start. That means that of 100 people, 2 people similar to you would have a heart attack. By cutting the risk in half, now only 1 out of 100 would have a heart attack. For some people, any risk lowering is meaningful. For others, the fact that 98 out of 100 people will not have an event is OK.

- **Be consistent with your use of denominators and time periods.**

***It doesn't matter if we have risk scores that are fairly accurate in identifying people who are in need of more intensive cardiovascular risk reduction if we can't effectively communicate their score and what it means to them personally. How well we relay this information influences how likely someone is to engage in risk reduction strategies, including behavior change.***

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- ❑ **Give balanced information when explaining the advantages and disadvantages of therapies.** When possible, explain the potential pros and cons of a particular therapy. If the odds of experiencing a side effect is 10 percent, it means that of 100 people, 10 will have a bad reaction, but 90 will not. This number may be acceptable for some, and not for others.
- ❑ **Use all cardiovascular risk discussion as an opportunity to empower patients to make heart healthy changes.** Be sure to identify and praise steps they are already taking to support their heart health. Doing so can help empower patients and gives them a sense of control to change risk.
- ❑ **Acknowledge the emotional side of managing cardiovascular disease risk.** It's important to address patients' emotions and, to the extent possible, help put their mind at ease.
- ❑ **There is always uncertainty when it comes to risk.** Remind patients that risk is a possibility – high or low – that something will happen based on what we know to be true. There is no way of knowing for sure and it's OK to be transparent about that.
- ❑ **Check in to assess patients' understanding.** Use the “teach-back” method to ask patients to explain or restate in their own words what was explained to them about their cardiovascular risk and/or treatments to help lower their chance of developing new or ongoing heart problems. This gives clinicians an opportunity to clarify the information if needed.

Here's an example of how you might ask without sounding as though you are quizzing them. “We went over a lot of information today. Can you tell me what you heard about x, y, or z to be sure I explained it well enough?”

- ❑ **Review goals at each visit and celebrate successes.** If the goal was to buy unsalted foods or to walk up the stairs instead of taking the elevator, ask how they are doing and praise them for their efforts. If there have been reductions in blood pressure, for example, help them tie that to their behaviors.
- ❑ **Risk discussions should be revisited over time** Because cardiovascular risk is dynamic and ever-changing, it should be part of ongoing prevention and disease management discussions and care planning.

For example, strategies to assess cardiovascular risk and/or initiate or intensify treatments aimed at risk reduction may change based on:

- Patient priorities
- New health conditions or risk factors (e.g., sleep apnea, diabetes, arrhythmias, new onset hypertension or hyperlipidemia)
- Health behaviors and habits (e.g., sedentary lifestyle, smoking)
- Progression or exacerbation of disease
- Medication adherence or non-adherence
- Concomitant medications known to have cardiovascular effects (e.g., some cancer treatments, certain antidepressants and pain medicines)
- New or evolving evidence on benefits and harms of cardiovascular risk-reducing therapies

# ADDITIONAL RESOURCES AND TOOLS YOU CAN USE

Based on input from patients and a multidisciplinary team of clinical experts, we have developed downloadable tools to help facilitate cardiovascular risk discussions with patients.

For your patients:



## What is Risk? Making Sense of Cardiovascular Risk

An educational handout to help explain risk -- what it means, what it might sound and feel like, key questions to ask, explanation of cardiovascular risk factors.



## What's My Risk of Heart Disease? Self-Assessment Tool

A printable tool that can be used in the waiting room, during or after visits to help patients—and their care team—gauge their understanding or perception of:

- **Their personal cardiovascular risk**
- **The severity of disease, if applicable**
- **The extent to which they believe they can affect this risk – how empowered they feel that by doing x, y and z they will reduce their risk**
- **Their goals and preferences**
- **Other factors that play a role (e.g., medication costs and other access issues, worries about side effects, health literacy)**



**Questions to help jumpstart risk discussions** – risk discussions play out in many ways depending on the type of risk, treatments considered and where your patient is in their journey, whether newly diagnosed or living with the disease and needing to adjust their treatment(s). Here are some questions that might help:

- **We've reviewed a lot today. Can you tell me in your own words what we talked about?**
- **Do you have any questions?**
- **Before I move on, is there anything else I should have asked you?**

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