SEXUALLY Speaking

By Anne Katz, PhD, RN

Sexuality and Myocardial Infarction

When it's safe to try again.

One in every three American adults suffers from one or more types of cardiovascular disease, according to estimates in the most recent report of the American Heart Association (AHA).[1] Advances in treatment have enabled many of these patients to maintain active lifestyles, including sexual functioning, well into their 80s. Yet cardiovascular disease is not exclusive to older adults; in fact, the AHA found that fewer than half of those with cardiovascular disease were 65 years or older.[1] Clearly, as the graying of America continues, the ramifications of heart disease will follow some for many, many years. For most of these patients, attaining a normal lifestyle—including sexual functioning—will be an important goal of treatment.

However, many myths persist about sexual functioning in the context of cardiac disease. The predominant fictitious belief is that sex is no longer permissible after a cardiac event such as myocardial infarction (MI). In truth, most patients can safely return to sexual pursuits after a cardiac event. Another pervasive untruth is that if a patient has heart disease, any sexual activity will lead to chest pain. On the contrary, chest pain is not an inevitable result of sexual functioning. Finally, many believe that sex is no longer important to older adults. In fact, respondents to the 1999 AARP/*Modern Maturity* Sexuality Study said otherwise: approximately 67% of men and 57% of women considered "a satisfying sexual relationship" to be important to the quality of people's lives.[2]

Unfortunately, these myths can influence how the patient with cardiac disease and her or his partner reestablish sexual patterns and affect how health care providers perceive, treat, and educate this patient. It's important, therefore, to review the facts: the risk of MI resulting from intercourse is quite low, and with appropriate information, patients with cardiac disease can feel comfortable resuming sexual intimacy. Guidance in initiating patient discussions using the PLISSIT and BETTER models is provided on pages 50 and 51, respectively. Such conversations are essential to dispelling the myths surrounding cardiovascular disease and sexuality and should be carried out both before discharge and at follow-up because some patients may not be ready to consider this topic in the period immediately following the event.

THE RISKS AND REQUIREMENTS OF SEX

In interviews with 858 patients who had experienced MI approximately one week earlier, Muller found that "sexual activity was a contributor to MI in only 0.9% of cases."[3] In addition, the relative risk of MI onset in patients in this population without a previous history of cardiac disease was similar to that of patients who had had a previous MI: 2.5 and 2.9, respectively. The researchers also concluded that the "hazard period" of elevated MI risk existed for just two hours after intercourse. After cardiac rehabilitation, the absolute risk of a post-MI patient experiencing an additional event as a result of sexual activity is 20 in a million.

> *Chest pain is not an inevitable result of sexual functioning.*

Patients who are able to take part in strenuous physical activity without chest pain will rarely experience angina during sexual activity; the risk is more significant for their sedentary counterparts with severe cardiac disease.[4]

How much energy does sex actually require? Energy expenditure is measured using metabolic equivalents (METs). In assessing the energy demands of sexual intercourse, Thorson concluded that it has similar requirements to those of mild-to-moderate-intensity exercise.[5] For example, prior to orgasm, sexual activity averages 2 to 3 METs—the equivalent of walking on a level surface at a brisk pace. During orgasm, demands increase to 3 to 4 METs. In contrast, cycling at

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Using the PLISSIT Model to Discuss Sexuality and Myocardial Infarction

Permission:
All nurses should be able to function at this level—for example, making a general statement that normalizes the topic.

- Example: "Many couples are concerned about making love after one person has a heart attack. Do you have any concerns that I can help you with?"

Limited **I**nformation:
Most should be able to give this kind of information.

- Example: "Mr. Jones, the amount of energy you expend during sexual intercourse is about the same as when you're walking at a brisk pace. If you experience chest pain during sex, you should stop and take your medication."

Specific **S**uggestion:
Requires a higher level of expertise on the part of the nurse, who must be able to provide anticipatory guidance on possible sexual consequences of medications and other treatments.

- Example: "Many people assume that the man-on-top (traditional missionary) position is harmful for a man who has had a heart attack. This is not necessarily true. However, if you believe this and are anxious, you may want to consider other positions for intercourse or perhaps alternatives to penetrative intercourse."

Intensive **T**herapy:
Usually requires a referral to a sex therapist or specially trained counselor.

- Example: "Men who use nitrates should not use medications for erections, such as Viagra, Cialis, or Levitra. Perhaps you and your partner would like to meet with a sex therapist to discuss alternative activities that don't require a firm erection but can be satisfying."

Annon JS. *The behavioral treatment of sexual problems.* 1st ed. Honolulu, HI: Enabling Systems; 1974.

10 miles per hour uses 6 to 7 METs. However, if the person is anxious or experiencing the increase in excitement that often accompanies sexual activity with a new partner, the heart rate and blood pressure may rise, increasing the risk of an adverse event.

SEXUAL DIFFICULTIES AFTER MI

It's not uncommon for a patient with cardiac disease to experience sexual difficulties after a new diagnosis or hospitalization. Patients may reduce their level of sexual activity or cut out sex altogether because they fear a repeated cardiac event or death, or because of fear on the part of the partner of inducing an event. A pilot study by Vacanti and Caramelli found that 40% of men experienced erectile dysfunction after MI; this was often associated with significant distress.[6] Depression is also common after MI. The failure to adopt effective coping mechanisms in the light of a cardiac diagnosis may predispose the patient to cardiac invalidism, which is associated with sexual dysfunction.[7]

Medications may cause sexual difficulties. Many of the medications used to treat cardiac disease, such as β-blockers, angiotensin-converting enzyme inhibitors, calcium channel blockers, and antihypertensive medications, may cause sexual difficulties, including diminished libido, erectile difficulties, ejaculatory problems, and diminished lubrication or orgasms.[8] Difficulties with orgasm tend to require psychotherapy and extensive education for both men and women.

Treatment for women. Women who experience vaginal dryness as a result of medication can use over-the-counter vaginal moisturizers (Replens) and lubricants (Astroglide or KY products) for sexual activity. There are no approved treatments for lack of libido in women.

Treatment for men. The most common treatment for erectile dysfunction is one of the phosphodiesterase-5 inhibitors such as sildenafil (Viagra), tadalafil (Cialis), and vardenafil (Levitra). Because these agents tend to have vasodilatory properties, they should be used with caution in men with heart disease—as should herbal or natural erectile medications, which may contain sildenafil.[9] These medications are contraindicated in men who are taking regular doses of organic nitrates (nitroglycerin, isosorbide mononitrate, isosorbide dinitrate) and should be used with caution in men with unstable cardiac disease and in those with low blood pressure or significant heart failure.[5,10] The use of testosterone remains controversial.[11]

RESUMING SEXUAL ACTIVITY

According to the Princeton Consensus Panel, "traditionally it has been recommended that sex be avoided for six to eight weeks after an MI. In the presence of a satisfactory post-MI stress test, however, the period of inactivity may be reduced to three to four weeks in select patients."[12] However, those who experience complications—such as hypotension, serious arrhythmia, or heart failure—should resume sexual activity more gradually, depending on their exercise tolerance (judged on the basis of a medically supervised stress test) and activity levels. Participation in a cardiac rehabilitation exercise program can reduce the cardiac work associated with sexual activity and the risk of triggering an MI.[3] Exercise has also been shown to reduce the depression that often follows MI.[13, 14]

Many people wait longer than the recommended period to initiate sexual activity because they fear complications or sudden death. Couples should be advised to take as long as they need to resume an active sexual life. However, they should also be encouraged to actively share thoughts about their needs and desires. By initiating such a discussion, the nurse indicates that she or he is willing to give information when needed.

Do sexual positions make a difference? It's currently believed that upon returning to sexual activity after MI, couples should use any sexual position with which they are comfortable. However, patients should be warned that receptive anal intercourse is potentially dangerous because stimulation of the vagus nerve during anal intercourse can cause bradycardia and a decrease in coronary blood flow, which may lead to chest pain. In addition, they should also avoid sexual activity for three hours after a heavy meal, after excessive alcohol intake, in extreme temperatures, or when wearing restrictive clothing.[15]

It's important to remind patients and their partners that alternatives to intercourse are both normal and acceptable. Nonpenetrative activities can provide sexual pleasure and satisfaction without the expenditure of an excess of energy. For example, many couples only kiss and caress each other during foreplay. Suggesting that these activities can temporarily replace intercourse allows a couple to touch and experience intimacy

Using the BETTER Model to Discuss Sexuality and Myocardial Infarction

Bringing up the topic. Raise the issue of sexuality with patients.
- Example: "I'm now going to ask you some questions about your usual level of sexual activity and give you some information about changes that you may notice when you go home. I talk to all cardiac patients about this and you should feel free to ask me any questions that you have."

Explaining that sex is a part of life helps to normalize the discussion and may help the patient feel less embarrassed or alone.
- Example: "It may feel like sex is the last thing on your mind right now; however, over the next few weeks or months, as you recover, you'll probably find yourself once again becoming interested in this aspect of your life."

Telling the patient that resources will be found to address her or his concerns. Even if the nurse doesn't have an immediate solution, others can help.
- Example: "You will find resources to address this issue on the Web site of the American Heart Association. We also have some printed material on this topic, and you can ask me any questions you may have. If I don't know the answer, I will try to find it."

Timing of intervention. Patients who aren't ready to deal with sexual issues can ask for information in the future.
- Example: "I realize that we have a lot of information to give you before your discharge and this can be overwhelming. Here is a list of books and Web-based resources that you can access when you're home. You can also call the rehab counselor for additional information."

Education on sexual side effects of treatment, which is as important as information about any other adverse effects.
- Example: "Your cardiologist has prescribed a β-blocker for you. It may cause you some difficulty in achieving or maintaining an erection. You may want to ask your cardiologist about a medication like Viagra."

Recording. In the patient's file, include a brief notation that a discussion about sexuality or sexual side effects occurred.
- Example: "Sexual side effects of new medications discussed with patient."

Mick J, et al. *Oncol Nurs Forum* 2003;30(2 suppl):152-3.

and sexual pleasure without feeling pressure to have intercourse.

MI warning signs. Patients who experience chest pain and have nitroglycerine on hand should take the prescribed amount and notify their physician if the pain is not relieved within 15 minutes. They should also report shortness of breath, dizziness, a persistent increase in heart rate or blood pressure, or extreme fatigue after sexual activity.[8]

Nurses can promote sexual health by encouraging regular physical activity; smoking cessation; maintenance of a healthy weight; and the maintenance of blood pressure, cholesterol, and insulin levels in the normal ranges. (And of course, the importance of condoms can always be emphasized.) ▼

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On the Cover

As part of a commission from the James A. Michener Art Museum, Ed Eckstein spent the summer of 1998 in Doylestown Hospital in Doylestown, Pennsylvania; 36 of the photographs were displayed at the museum for the hospital's 75th anniversary. The photographs are now on permanent display at the hospital. Eckstein acknowledges that he would probably not have this type of unlimited access to his subjects today, given the stricter rules that govern permission to take photographs—of either patients or health care professionals.

Eckstein, naturally drawn to solo images, was attracted to the "space-age" image of the orthopedic surgery nurse depicted on the cover because it represented a different, modern image of health care. Parts of the surgical scene—the lights, the patient—are reflected in the nurse's visor. Eckstein says that when he attended operations, he would look for the "key moments," the dramatic events, which tended to arise early in the process, before the surgical team settled into a comfortable rhythm.

This is Eckstein's third cover as part of *AJN*'s photojournalism contest, *Faces of Caring: Nurses at Work;* he says he is reminded of something said by William Osler, physician and cofounder of Johns Hopkins University: "The trained nurse has become one of the great blessings of humanity, taking a place beside the physician and priest, and not inferior to either in her mission."—*Dana Carey, associate editor*