Preconception Clinical Care for Men Health Promotion

Preconception care offers an opportunity, similar to the opportunity it presents for women, for disease prevention and health promotion among men. In addition, preconception care for men is an important factor in improving family planning and pregnancy outcomes for women, enhancing the reproductive health and health behaviors of men and their partners, and preparing for fatherhood.

Family Planning and Reproductive Life Plan

As defined by CDC, a reproductive life plan is a set of personal goals about having (or not having) children based on personal values and resources, and a plan to achieve those goals. The patient is queried as to whether he and his partner plan to have any (more) children, and how long he and his partner plan to wait. If they plan to wait less than a year, the patient should return for a full preconception assessment. If they plan to wait more than a year, the patient should continue to receive recommended age-appropriate preventive health services, but the provider should make sure that he and his partner are using effective contraception, and update their reproductive life plan at every routine visit.

Examination and Testing

Physical examination and laboratory testing should be guided by clinical history. For example, men at increased risk for STIs should be offered screening for HIV and syphilis. The U.S. Preventive Services Task Force (USPSTF) recommends screening all adult men for high blood pressure and obesity; men 35 years of age or older for lipid disorders (as well as men 20–35 years of age with diabetes, a family history of cardiovascular disease or familial hyperlipidemia, or multiple coronary heart disease risk factors); men with hypertension or hyperlipidemia for type 2 diabetes mellitus; and men 50 years of age or older for colorectal cancer. Routine screening for testicular cancer among young men or prostate cancer among men 50 years of age or older (45 years of age or older for men at increased risk, e.g., Black or African-American men and those with family history of prostate cancer) also might be considered.

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Healthy Weight

Among males, being overweight or obese has been associated with a lower testosterone level, poorer sperm quality, and reduced fertility as compared to being overweight or obese; the odds of infertility increases by 10% for every 20 pounds a man is overweight.[i]

An important objective of preconception care for men is to achieve a healthy weight before conception. For substantial health benefits, adults should do at least 150 minutes (2 hours and 30 minutes) a week of moderate-intensity, or 75 minutes (1 hour and 15 minutes) a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic activity. Aerobic activity should be performed in episodes of at least 10 minutes, and preferably, it should be spread throughout the week.

Adults should also do muscle-strengthening activities that are moderate or high intensity and involve all major muscle groups on 2 or more days a week, as these activities provide additional health benefits.

After successful weight loss, the likelihood of weight loss maintenance is enhanced by a program consisting of dietary therapy, physical activity, and behavior therapy.

Immunization

The immunization status of men should be reviewed as part of a preconception evaluation, and appropriate vaccines should be offered. Immunization recommendations are updated annually by CDC, the American College of Physicians, and the American Academy of Family Physicians.

Inflammation

Chronic inflammation can cause oxidative damage to sperm. Sources of chronic inflammation include chronic, untreated infections such as periodontal disease or STIs; stress; and diet. Screening for such disorders or exposures should be included as a routine part of health promotion during preconception care.

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Mental Health

Routine screening for mental health disorders should be performed. Recent evidence has suggested that paternal depression during the postnatal development of a couple's child can be associated significantly with poor childhood emotional and behavioral outcomes, even after adjusting for maternal depression and paternal depression during a different developmental stage of the child; such long-term detriments can be averted with identification and referral of at-risk fathers-to-be for mental health services. Furthermore, fathers with depression can have a negative effect on mother–child interactions, and are less likely to engage in certain father–child interactions, such as playing outdoors with their children. On the other hand, fathers with good mental health have been shown to reduce the effects of a mother's depression on their child.

Reducing Stress and Enhancing Resilience

The effects of chronic stress on men's cardiovascular health have been well demonstrated; much less is known about the effects of chronic stress on men's reproductive health. Stress can disrupt hypothalamic-pituitary-gonadal functions, resulting in decreased steroidogenesis and spermatogenesis. Stress also can increase susceptibility to infection and inflammation, which can cause oxidative damage to sperm. However, the literature on stress and semen quality has been inconsistent. It appears prudent to recommend steps that promote stress reduction and resilience in the context of male preconception care.

Elements to consider include regular physical activity, adequate sleep, and balanced nutrition. Programs or selected readings that enhance a patient's emotional intelligence, ability for interpersonal communications, and positive mental health should be helpful as well. As is recommended for women, men should be screened for the adequacy of their social support systems. Activities that strengthen social support should be encouraged.

More Information

This fact sheet is part of a series on the clinical content of preconception care for men. Other fact sheets in the series include:

- Personal History
- Exposures

[i]Sallmen M, Sandler DP, Hoppin JA, Blair A, Baird DD. Reduced fertility among overweight and obese men. Epidemiology. 2006;17:520–523

To see the complete list of the preconception clinical content and description of how the content was selected and rated, please visit: www.cdc.gov/preconception/careformen.