

Preventative Screening and Recommended Vaccines for Adults: A Comprehensive Guide

Preventative screening and vaccinations are crucial components of maintaining long-term health and preventing serious illnesses. This post aims to provide an overview of essential screenings and recommended vaccines for adults, ensuring you stay informed and proactive about your health.

The Importance of Preventative Screening

Preventative screening tests are designed to detect potential health issues before they become serious. Early detection through regular screenings can lead to more effective treatment, better outcomes, and a higher quality of life. Here are some key screenings every adult should consider:

1. Blood Pressure Screening

High blood pressure (hypertension) is a major risk factor for heart disease and stroke. Adults should have their blood pressure checked at least once a year if it is normal, and more frequently if it is elevated.

Hypertension is defined by sustained elevated blood pressure readings, typically above 130/80 mmHg. It is classified into different stages:

- Normal: Less than 120/80 mmHg
- Elevated BP: Systolic 120-129 mmHg and diastolic less than 80 mmHg
- Stage 1 Hypertension: Systolic 130-139 mmHg or diastolic 80-89 mmHg
- Stage 2 Hypertension: Systolic 140 mmHg or higher or diastolic 90 mmHg or higher

Goal BP for those with CAD, CHF, diabetes, chronic kidney disease or prior history of stroke is below 130/80.

2. Cholesterol Screening

Cholesterol levels, also referred to as Lipids, can indicate your risk for heart disease.

Key Lipid Parameters

- Total Cholesterol: Ideal levels are less than 200 mg/dL.
- LDL: Often termed "bad cholesterol," optimal levels are less than 100 mg/dL.
- HDL: Known as "good cholesterol," levels above 60 mg/dL are considered protective.
- Triglycerides: Normal levels are less than 150 mg/dL.

Optimal LDL levels for those with vascular disease, diabetes or chronic kidney disease is 55-70 mg/dL, depending on risks.

For young adults who have not been screened as children, it is recommended to obtain a baseline lipid profile at the time of initiation of care with an adult primary care practitioner to screen for familial (hereditary) hyperlipidemia and to assess cardiovascular disease (CVD) risk.

For patients at higher cardiovascular risk (hypertension, diabetes mellitus, cigarette smoking, family history of premature CHD), it is suggested that follow-up lipid screening be performed in males between the ages of 25 to 30 and in females between the ages of 30 to 35.

For patients at lower cardiovascular risk (none of the above factors), it is suggested follow-up lipid screening be performed in males at age 35 and in females at age 45.

3. Diabetes Screening

Screening for type 2 diabetes is recommended for adults aged 35 and older, or earlier for those with risk factors such as obesity or a family history of diabetes. The 2021 guidelines from the US Preventive Services Task Force (USPSTF) recommend screening for abnormal glucose as part of cardiovascular risk assessment in adults aged 35 to 70 years who are overweight or obese. The USPSTF suggests screening every three years based on limited evidence. The American Diabetes Association (ADA) recommends testing for diabetes or prediabetes in adults with body mass index (BMI) ≥ 25 kg/m² who have one or more additional risk factors for diabetes (family history, obesity, hypertension). In all other adults, the ADA recommends that testing begin at age 35 years. Risk of diabetes can be estimated using the ADA diabetes risk test at diabetes.org.

The A1C test, fasting glucose test, or oral glucose tolerance test can be used for screening. An A1c of 6.5 or higher, two fasting glucose levels of 126 or higher, or an impaired glucose tolerance test meet the criteria for diabetes. Prediabetes is defined as an A1c of 5.7-6.4%.

4. Cancer Screenings

- Colorectal Cancer: Adults aged 45-75 should undergo regular screenings using methods such as a colonoscopy, sigmoidoscopy, or stool tests. Screening may be recommended earlier based on family history.

- Breast Cancer: Women aged 40-74 should have a mammogram every one to two years. Women with higher risk factors may need to start earlier and screen more frequently.

- The US Preventative Services Task Force (USPSTF) recommends that all women get screened for breast cancer every other year, starting at age 40 and continuing through age 74.

- The American Cancer Society recommends that women between 40 and 44 have the option to start screening with a mammogram every year. Women 45 to 54 are recommended to get mammograms every year. Women 55 and older can switch to a mammogram every other year, or they can choose to continue yearly mammograms. Screening should continue as long as a woman is in good health and is expected to live at least 10 more years.
- Women who are at high risk for breast cancer based on certain factors should get a breast MRI and a mammogram every year, typically starting at age 30. This includes women who:
 - o Have a lifetime risk of breast cancer of about 20% to 25% or greater, according to risk assessment tools that are based mainly on family history
 - o Have a known [BRCA1 or BRCA2 gene mutation](#) or other mutations that increase risk (based on having had genetic testing)
 - o Have a first-degree relative (parent, brother, sister, or child) with a BRCA1 or BRCA2 gene mutation, and have not had genetic testing themselves
 - o Had radiation therapy to the chest before they were 30 years old
 - o Have Li-Fraumeni syndrome, Cowden syndrome, or Bannayan-Riley-Ruvalcaba syndrome, or have first-degree relatives with one of these syndromes

The American Cancer Society recommends against MRI screening for women whose lifetime risk of breast cancer is less than 15%.

The American Cancer Society states that research has not shown a clear benefit of regular physical breast exams done by either a health professional (clinical breast exams) or by women themselves (breast self-exams). There is very little evidence that these tests help find breast cancer early when women also get screening mammograms.

- Cervical Cancer: Guidelines differ, recommending women aged 21-65 have a Pap smear and/or HPV testing every 3 to 5 years.
 - The USPSTF and the American College of Gynecology recommend initiating screening at the age of 21 with cervical cytology (Pap smear) every three years through the age of 29. Women 30-65 are recommended to have primary HPV testing every five years; or co-testing (Pap and HPV testing) every five years; or Pap test alone every three years.
 - The ACS recommends initiating screening at the age of 25 with FDA-approved primary HPV testing, Pap/HPV co-testing every 5 years, or Pap testing every 3 years.
 - All guidelines state that screening for cervical cancer in women older

than 65 years who have had adequate prior screening and are not otherwise at high risk for cervical cancer is not recommended.

- All guidelines state that women who have had a hysterectomy for non-cancerous reasons (bleeding or fibroids) can stop screening.

- Prostate Cancer: Men aged 50-69 should discuss the benefits and risks of prostate cancer screening with their doctor. The USPSTF states that, for men aged 55 to 69 years, the decision to undergo periodic prostate-specific antigen (PSA) screening for prostate cancer should be an individual one. Screening offers a small potential benefit of reducing the chance of death from prostate cancer in some men. However, many men will experience potential harms of screening, including false-positive results that require additional testing and possible prostate biopsy; overdiagnosis and overtreatment; and treatment complications, such as incontinence and erectile dysfunction. Clinicians should not screen men who do not express a preference for screening. The USPSTF recommends against PSA-based screening for prostate cancer in men 70 years and older. Annual digital rectal examination (DRE) is also no longer recommended.

- Lung Cancer: The USPSTF recommends annual screening for lung cancer with low-dose computed tomography (LDCT) in adults aged 50 to 80 years who have a 20 pack-year smoking history and currently smoke or have quit within the past 15 years. Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery. The American Cancer Society recommends screening for adults 50-80 years old with a 20+ pack year history, regardless of when they quit smoking.

5. Osteoporosis Screening: Women aged 65 and older should be screened for osteoporosis with a bone density test. The USPSTF recommends screening for osteoporosis with bone measurement testing to prevent osteoporotic fractures in postmenopausal women younger than 65 years who are at increased risk of osteoporosis, as determined by a formal clinical risk assessment tool. Men at higher risk should also discuss screening with their doctor.

6. Abdominal Aneurysm Screening: The USPSTF recommends 1-time screening for abdominal aortic aneurysm (AAA) with ultrasonography in men aged 65 to 75 years who have ever smoked. The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for AAA with ultrasonography in women aged 65 to 75 years who have ever smoked or have a family history of AAA. The USPSTF recommends against routine screening for AAA with ultrasonography in women who have never smoked and have no family history of AAA.

7. Tobacco: The USPSTF recommends that clinicians ask all adults about tobacco

use, advise them to stop using tobacco, and provide behavioral interventions and US Food and Drug Administration (FDA) approved pharmacotherapy for cessation to adults who use tobacco.

8. Alcohol: The USPSTF recommends screening for unhealthy alcohol use in primary care settings in adults 18 years or older, including pregnant women, and providing persons engaged in risky or hazardous drinking with brief behavioral counseling interventions to reduce unhealthy alcohol use.

9. Depression: The USPSTF recommends screening for depression in the adult population, including pregnant and postpartum persons, as well as older adults.

10. Fall Risk: The USPSTF recommends exercise interventions to prevent falls in community-dwelling adults 65 years or older at high risk.

Recommended Vaccines for Adults

Vaccinations are not just for children; they play a crucial role in adult health as well. Here are the essential vaccines every adult should consider:

1. Influenza (Flu) Vaccine

An annual flu vaccine is recommended for all adults to protect against the seasonal flu, which can lead to severe illness and complications, especially in older adults and those with chronic health conditions.

2. Tetanus, Diphtheria, and Pertussis () Vaccine

Adults should receive a Tdap vaccine once, followed by a tetanus and diphtheria (Td) booster every 10 years. Pregnant women should receive a Tdap vaccine during each pregnancy to protect their newborn from pertussis (whooping cough).

3. Shingles (Herpes Zoster) Vaccine

Adults aged 50 and older should receive the shingles vaccine to prevent shingles and its complications, such as postherpetic neuralgia.

4. Pneumococcal Vaccine

Adults aged 65 and older, and those with certain medical conditions, should receive the pneumococcal vaccine to protect against pneumococcal disease, including pneumonia, meningitis, and bloodstream infections.

5. Hepatitis B Vaccine

Adults at risk for hepatitis B infection, including healthcare workers, people with chronic liver disease, and those with multiple sex partners, should receive the hepatitis B vaccine.

6. Human Papillomavirus (HPV) Vaccine

Adults up to age 26 who were not vaccinated as adolescents should receive the HPV vaccine to protect against HPV-related cancers. Some adults aged 27-45 may also benefit from the vaccine, depending on their risk factors.

7. Measles, Mumps, and Rubella (MMR) Vaccine

Adults born after 1957 who have not had the MMR vaccine or do not have immunity should receive at least one dose of the MMR vaccine.

8. Respiratory Syncytial Virus (RSV) Vaccine

Adults aged 60 and older should consider the RSV vaccine, especially those with underlying health conditions such as chronic heart or lung disease. RSV can lead to severe respiratory illness in older adults and those with weakened immune systems.

Conclusion

Preventative screening and vaccinations are essential components of maintaining optimal health and preventing serious illnesses. By staying up to date with recommended screenings and vaccines, adults can significantly reduce their risk of developing chronic conditions and infectious diseases. Always consult with your healthcare provider to determine the best screening schedule and vaccination plan tailored to your individual health needs.