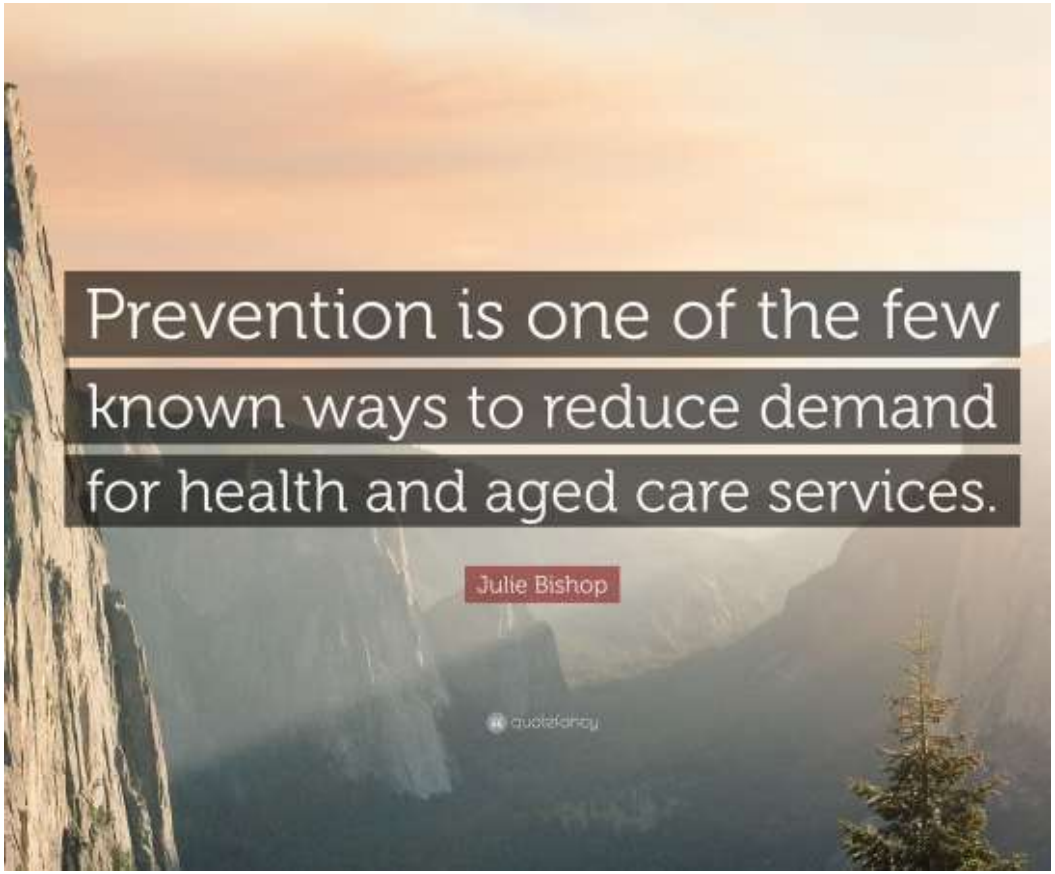


Why Prevention ?

Suha khalifa MD,FAAFP

Family doctors

- Play an important role in cancer control that often goes beyond screening and diagnosis to treatment, survivorship, and palliative care.

- Family medicine is a privileged reference for health policymakers being the source of information on the feasibility, effectiveness, and economic sustainability of the adopted policies.

MTCC

Insurance companies

All employers should understand that increasing their investment in clinical preventive services will reduce cost and increase employee loyalty.

They must devote more attention to prevention, particularly among older workers, to reduce the prevalence and costs of chronic illness and disability.

The importance of primary care model as providers of service .

There has been an emerging recognition of the need for innovative delivery systems that integrate prevention into both health and community systems

Patients should be connected to health care providers to ensure they get needed preventive services to decrease health risks, identify problems early, and manage chronic conditions to minimize their impact on their lives .

Family physicians play an important role in cancer control that often goes beyond screening and diagnosis to treatment, survivorship, and palliative care.

Anticipatory Care Aims to :

1. Enhancing patient outcomes and quality of life improvement .
2. Increase life expectancy
3. Promoting of advances in cancer care , reducing social and economic barriers in Cancer care .
4. Reduce the burden of premature disability .

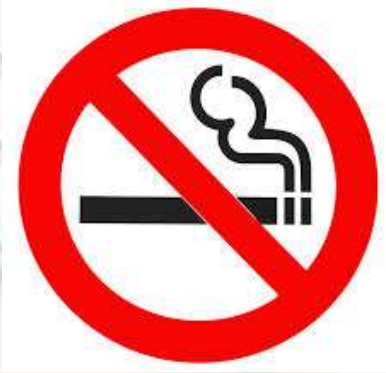
Health promotion :

- Health promotion activities are non-clinical life choices, for example, eating nutritious meals and exercising daily, that both prevent disease and create a sense of overall well-being.
- Preventing disease and creating overall well-being, prolongs our life expectancy.
- **Health-promotional activities do not target a specific disease or condition but rather promote health and well-being on a very general level .**

Levels of Preventions :

1. Primary – prevent risk factor .
2. Secondary – prevent subclinical illness from advancing .
3. Tertiary – prevent clinical illness from advancing .

Primary prevention



1- **Health education, Behavioral counseling , lifestyle changes**
Provide information, in the hope that they will modify their behavior, ex: education about smoking related diseases.

2- **Prophylaxis**
Active medical intervention to protect from disease, ex: vaccination, immunization.

Secondary prevention

1- **Screening**

Systematic attempts to detect disease in an apparently healthy at-risk population

Wilson's criteria for screening tests

- The **condition** should be prevalent problem.
- The natural history of the condition should be understood.
- There should be a recognizable latent or early symptomatic stage.
- There should be a **test** that is easy to perform and interpret, acceptable, accurate, reliable, sensitive and specific.
- There should be an accepted **treatment** recognized for the disease.
- Treatment should be more effective if started early.
- Diagnosis and treatment should be **cost-effective.**

Tertiary prevention

- Monitoring of the patient with an established disease to prevent or minimize complications

  Ex: - prevention of end-organ damage in hypertensive/diabetic patients

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  - Rehabilitation of stroke patients

What is the USPSTF

- Created in 1984, the **U.S. Preventive Services Task Force** is an independent, volunteer panel of national experts in prevention and evidence-based medicine.
- The Task Force works to improve the health of all Americans by making evidence-based recommendations about clinical preventive services such as screenings, counseling services, and preventive medications.
- All recommendations are published on the Task Force's Web site and/or in a peer-reviewed journal.

Grade Definitions After July 2012

What the Grades Mean and Suggestions for Practice

Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer or provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer or provide this service.
C	The USPSTF recommends selectively offering or providing this service to individual patients based on professional judgment and patient preferences. There is at least moderate certainty that the net benefit is small.	Offer or provide this service for selected patients depending on individual circumstances.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I Statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	Read the clinical considerations section of USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

Wellness visit

- Generally during a wellness check up the physician :
- Assess the general health
- Take a medical history
- Family history
- Conduct an exam
- Order blood tests and imaging
- Lifestyle changes
- Help create a plan to improve your overall health

CARDIOVASCULAR DISEASE

- CVD remains the leading cause of mortality in adults worldwide

- Patients aged ≥20 years should undergo cardiovascular risk assessment every three to five years.
- Prevalence varies with race and ethnicity .
- Risk can be estimated using several widely available tools.

Risk factors

The USPSTF recommends offering or referring adults with cardiovascular disease risk factors to behavioral counseling interventions to promote a healthy diet and physical activity.

- Smoking
- Overweight and obesity
- Unhealthy diet
- Physical inactivity
- Dyslipidemia
- Hypertension
- Diabetes mellitus (considered in some guidelines as a coronary heart disease [CHD] risk equivalent)

Hyperlipedemia screening

- The USPSTF recommends that screening for lipid disorders :

- ● The U.S. Preventive Services Task Force (USPSTF) strongly recommends that clinicians routinely screen men aged 35 years and older and women aged 45 years and older for lipid disorders and treat abnormal lipids in people who are at increased risk of coronary heart disease. A recommendation

Hyperlipemia

- ● The USPSTF recommends that clinicians routinely screen younger adults (men aged 20 to 35 years and women aged 20 to 45 years) for lipid disorders if they have other risk factors for coronary heart disease.
- B recommendation.

- ● The USPSTF makes no recommendation for or against routine screening for lipid disorders in younger adults (men aged 20 to 35 years or women aged 20 to 45 years) in the absence of known risk factors for coronary heart disease.

Risk factors

- ● Risk factors

- Diabetes –
- A family history of cardiovascular disease before age 50 years in male relatives or age 60 years in female relatives –
- A family history suggestive of familial hyperlipidemia –
- Multiple coronary heart disease risk factors (e.g., tobacco use, hypertension)

Hypertension

- Hypertension screening is recommended for adults ≥18 years of age .
- Most patients have their blood pressure checked at each primary care visit.
- Adults aged 18 to 39 years without elevated blood pressure (ie, <130/80 mmHg) and without cardiovascular disease risk factors should be rescreened every three to five years.

Diabetes mellitus

1. Screen asymptomatic adults aged 35 to 75 years of age who are obese or overweight .
2. Clinicians should consider screening at an earlier age in persons from groups with disproportionately high incidence and prevalence or in persons who have a family history of diabetes, a history of gestational diabetes, or a history of polycystic ovarian syndrome, and at a lower BMI in Asian American persons.
3. Patients with prediabetes should be referred to dietary interventions
4. Recommends screening women at 24 weeks of gestational age .

Screening modality

- Fasting blood sugar.
- Hba1c.
- Glucose tolerance test.
- Random blood sugar testing .

Aspirin

Decisions regarding aspirin for primary prevention of CVD should be made on an individual basis.

Low-dose aspirin may prevent cardiovascular disease (CVD) in some patients but also increases the risk of bleeding.

New evidence , published in JAMA from the US Preventive Services Task Force (USPSTF) concludes with moderate certainty that aspirin use for the primary prevention of CVD events in adults aged 40 to 59 years who have a 10% or greater 10-year CVD risk has a small net benefit.

The USPSTF concludes with moderate certainty that initiating aspirin use for the primary prevention of CVD events in adults 60 years or older has no net benefit.

Aspirin

low-dose aspirin continues to be recommended, for secondary prevention for patients with ASCVD or who have existing heart problems, including a history of a heart attack or stroke, angioplasty, PCI or CABG

The USPSTF recommends the use of low-dose aspirin (81 mg/day) as preventive medication after 12 weeks of gestation in persons who are at high risk for preeclampsia..

CANCER PREVENTION

- Avoidance of tobacco
- Being physically active
- Maintaining a healthy weight
- Eating a diet rich in fruits, vegetables, and whole grains and low in saturated/trans fat
- Limiting alcohol consumption
- Protecting against sexually transmitted infections (including receiving human papillomavirus [HPV] vaccination)
- Avoiding excess sun exposure

Breast Cancer

- 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:
- 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
- Have a known *BRCA1* or *BRCA2* gene mutation (based on having had genetic testing)
- Have a first-degree relative (parent, brother, sister, or child) with a *BRCA1* or *BRCA2* gene mutation, and have not had genetic testing themselves
- Had radiation therapy to the chest before they were 30 years old
- Have Li-Fraumeni syndrome, Cowden syndrome, or Bannayan-Riley-Ruvalcaba syndrome, or have first-degree relatives with one of these syndromes

Colorectal cancer

- The age of initiation and frequency of colorectal cancer screening varies with the risk:
- Average-risk patients aged 45 -75 and older be screened for colorectal cancer A
- Screen from age 50-75 years B
- The USPSTF recommends that clinicians selectively offer screening for colorectal cancer in adults aged 76 to 85 years. Evidence indicates that the net benefit of screening all persons in this age group is small. In determining whether this service is appropriate in individual cases, patients and clinicians should consider the patient's overall health, prior screening history, and preferences. C

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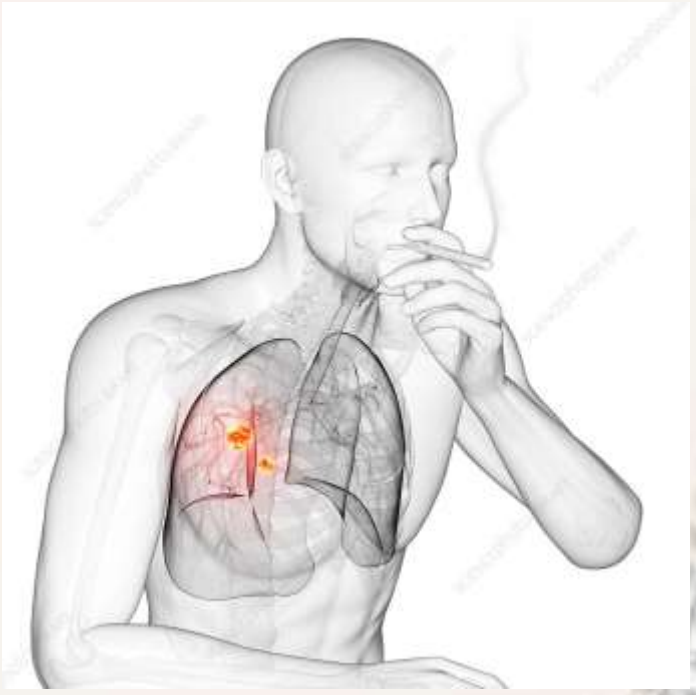
The recommended interval varies depending upon the screening strategy.

Recommended intervals for colorectal cancer screening tests include

- Recommended intervals for colorectal cancer screening tests include
- High-sensitivity gFOBT or FIT every year
- sDNA-FIT every 1 to 3 years
- CT colonography every 5 years
- Flexible sigmoidoscopy every 5 years
- Flexible sigmoidoscopy every 10 years + FIT every year
- Colonoscopy screening every 10 years

Lung cancer

- Annual screening with low-dose helical computed tomography (CT).
- Start at age 50-80 years , who have a 20-pack year smoking history within past 15 years or currently smoking



Osteoporosis

- Postmenopausal women <65 years with risk factors for osteoporosis
- Men with clinical manifestation of low bone mass, history of low trauma fracture, risk factors for fracture (such as androgen deprivation therapy for prostate cancer, hypogonadism, primary hyperparathyroidism, or intestinal disorders).
- All women ≥65 years.
- There are several modalities to evaluate bone density. Dual-energy x-ray absorptiometry (DXA)

Psychological disorders

- Screen adults for **depression** .
- Systems should be in place to ensure appropriate follow-up and management of patients who screen positive.
- There is limited evidence to guide the optimal frequency of screening for depression.
- **Anxiety** — A 2020 guideline from the Women's Preventive Services Initiative (WPSI) recommends screening for anxiety in women and adolescent girls aged 13 years .
- **Intimate partner violence** __routine screening for all patients on all visits to primary care clinicians, to obstetrician-gynecologists, to the emergency department, and on hospital admission

Substance abuse

- **Alcohol**, Single-item screen question, "Do you sometimes drink beer, wine, or other alcoholic beverages?" If yes, then the clinician can follow up with,
- How many times in the past year have you had five (four for women) or more drinks in a day?“
- **Drugs** The screening question is:
- “How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons?”

Abdominal aortic aneurysm

Population	Recommendation	Grade
Men aged 65 to 75 years who have ever smoked	The USPSTF recommends 1-time screening for abdominal aortic aneurysm (AAA) with ultrasonography in men aged 65 to 75 years who have ever smoked.	B
Men aged 65 to 75 years who have never smoked	The USPSTF recommends that clinicians selectively offer screening for AAA with ultrasonography in men aged 65 to 75 years who have never smoked rather than routinely screening all men in this group. Evidence indicates that the net benefit of screening all men in this group is small. In determining whether this service is appropriate in individual cases, patients and clinicians should consider the balance of benefits and harms on the basis of evidence relevant to the patient's medical history, family history, other risk factors, and personal values.	C
Women who have never smoked	The USPSTF recommends against routine screening for AAA with ultrasonography in women who have never smoked and have no family history of AAA.	D
Women 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.	I

Immunization

- Influenza vaccine
- Tetanus, diphtheria, and acellular pertussis vaccination (Td/Tdap)
- Human papillomavirus vaccines
- Zoster vaccine
- Pneumococcal vaccines
- Meningococcal vaccines
- Hepatitis B vaccination
- COVID-19
- RSV

Thank you