

Preventive interventions in adults

In the year 2004 the Department of Health released the second edition of the *Consensus on Adult Preventive Activities in Primary Health Care* as a result of an agreement amongst the Department of Health, the Family physicians Catalan Society, the Catalan Nurses Society, the Catalan Primary Care Societies and the Jordi Gol Foundation.

The first edition of the *Consensus Basis for the integration of prevention into health care practice* was published in 1993 and was followed by the *Consensus on Preventive Activities in Community Pharmacy* in 1997 and by the *White Book on Preventive Activities addressed to the elderly* in 1998. The recommendations on preventive services, breakdown into three major groups: immunizations, screenings and counseling.

Research has clearly demonstrated that providing high quality, evidence-based, preventive care is a critical factor in helping people live healthier lives. That the best way to ensure that preventive services are delivered appropriately is to make evidence-based information readily available at the point of care.

Now the Department of Health is pleased to present you this chart displaying the current recommended services in a friendly format.

While the *Consensus on Adult Preventive Activities in Primary Health Care* serves as a clinical reference, this easy-to-read chart can serve as a practical tool for your preventive health care decisions.

Vaccinations	Target population	Gender	Frequency
Tetanus and diphtheria	Adults	M/W	First vaccination (0, 4-8 weeks, 6-12 months) Revaccination every 10 years
Pneumococcal disease	At risk and > 60 years	M/W	First vaccination: Single dose. Revaccination: Only once if the first vaccination is before the age of 65

Flu	At risk and > 60 years	M/W	Annual
Hepatitis A	At risk	M/W	First vaccination (0, 1, 6 months)
Hepatitis B	At risk	M/W	First vaccination (0, 6, 12 months)
Rubella	Susceptible child-bearing age	W	Two doses of TV (0, >1 month)
Measles	Susceptible	M/W	Two doses of TV (0, >1 month)

Screening	Target population	Screening technique	Gender	Frequency
Obesity	Adults	Measure weight, height and BMI	M/W	Every 4 years
Diabetes	At risk and and/or > 45 years	Baseline glycaemia and O'Sullivan's test	M/W	Every 3 years in > 45 years. Annual in risk population
HBP	Adults	Take blood pressure	M/W	Population < 40 years every 4-5 years. More than 40 years every 2 years
Hypercholesterolaemia	Men > 34 years Women > 44 years	Total cholesterol. Complete lipid profile if > 200 mg/dl	M/W	Every 5 years
Visual impairments	At risk and > 65 years	Snellen's Optotypes	M/W	From 65-74 years every 2 years and > 74 years every year
Hearing impairments	> 65 years	Anamnesis or whisper test	M/W	From 65-74 years every 2 years and > 74 years every year
COPD	At risk > 40 years	Forced spirometry	M/W	Screening not recommended
Breast cancer	Women aged between 50 and 69 years	Mammography	W	Every 2 years
Cervical cancer	Women aged between 25 and 64 years, and > 65 years without prior smear	Pap smear	W	From 25 to 64 years every 3-5 years
Colorectal cancer	> 50 years	Detection of occult blood in stools, sigmoidoscopy or colonoscopy	M/W	Every 1-2 years
Prostate cancer	Men aged 50-70 years and at risk > 45 years	Detection of the prostate-specific antigen (PSA) + rectal palpation	H	Screening not recommended

Excessive alcohol consumption	Adults	Evaluate alcohol consumption	M/W	Every 2 years
Depression	At risk	Anamnesis, structured interview	M/W	Screening not recommended
Urinary incontinence	> 65 years	Anamnesis	M/W	Interview as of the age of 65
Gender violence	Women at risk	Anamnesis	W	Screening not recommended
Violence against the elderly	At risk	Anamnesis	M/W	Screening not recommended

Advice	Target population	Screening technique	Gender	Frequency
Feeding	Adults	Promote the Mediterranean diet	M/W	Continuous
Physical activity	Adults	Promote physical activity	M/W	Continuous
Give up smoking	Adults	Promote abstinence and offer counselling	M/W	Continuous
Prevention of sexually transmitted diseases and HIV infection	Adults	Active search	M/W	Continuous
Prevention of accidents in the home and leisure	Adults	Promote the use of safety elements	M/W	Continuous
Prevention of traffic accidents	Adults	Preventive counselling	M/W	Continuous
Mouth and dental health	Adults	Preventive counselling	M/W	Annual
Prevention of cognitive and behavioural disorders in the elderly	> 65 years	Anamnesis	M/W	Continuous
Use of medicines	Multi-medicated patients	Periodical reassessment	M/W	Annual
Prevention of the consumption of non-institutionalised drugs	Adults	Preventive recommendations	M/W	Continuous
Prevention of skin cancer	Adults	Recommend sun protection and periodica	M/W	Continuous
Mental health	Adults	Early detection	M/W	Moment of change in life
Prevention of the effects of extreme temperatures	Adults, particularly women > 65 years	Preventive counselling in cases of exce heat	M/W	Continuous

Vaccinations

	Recommendation	Target population	Frequency
Tetanus and diphtheria	Guarantee compliance with the systematic Td vaccination in adults	Non-vaccinated adults or if more than 10 years since last dose.	First vaccination: 1 dose at first, second and third dose 6-12 months after the third dose Revaccination: every 10 years Disease
Pneumococcal	Give the vaccination indicated to the population aged above 60, children above two years old and adults of risk groups	<ol style="list-style-type: none"> 1. Population aged above 60 2. Risk groups: <ul style="list-style-type: none"> - Asplenia - Renal failure or nephrotic syndrome - Falciform anaemia - HIV carriers - Immunosuppression - Solid or haematological tumour - Transplanted patients - Chronic pulmonary disease - Carrier of CSF fistula - Diabetes <i>mellitus</i> - Cardiovascular disease - Alcoholism - Hepatic cirrhosis 	One dose Booster dose after 5 years if age of 3 years if age of first vaccination
Flu	Administer the vaccine at the beginning of autumn to people aged above 60, more than 14 weeks' pregnant and risk groups	<ol style="list-style-type: none"> 1. Population aged above 60 2. Women more than 14 weeks' pregnant (and at any time in the pregnancy if they belong to risk groups). 3. People that belong to any risk group: <ul style="list-style-type: none"> - Public service groups (health personnel, firemen, police, teachers...) - Patients with cardiovascular, respiratory, renal or metabolic disease with chronic evolution. - Immunosuppression - Groups prone to transmitting the disease to people at risk. - Residents of closed institutions. - Travellers belonging to a risk group: if they go to the tropics during the year, southern hemisphere 	Every year

		between April and September and in organised groups and cruises at any time of the year	
Hepatitis B	Vaccinate adults of the risk groups	<ol style="list-style-type: none"> 1. Health personnel, students of health sciences, prison workers, forensic personnel, police, firemen, cleaning teams, people working with invasive techniques (tattoos, acupuncture, etc..). 2. Inmates of Penitentiary Centres or clinics for the disabled and the elderly. 3. People on transplant programmes. 4. Chronic liver diseases or mild renal failure. 5. Regular receivers of blood-derived products. 6. HIV infection. 7. Male homosexuals and promiscuous heterosexuals. 8. Parenteral drug users. 9. Household and sexual contacts of HBV carriers. 10. International travellers (according to the characteristics of the trip and destination). 	Three doses of anti-hepatitis B
Hepatitis A	Vaccinate adults of the risk groups.	<ol style="list-style-type: none"> 1. Travellers to endemic areas. 2. Food handlers. 3. Kindergarten staff 4. Workers in contact with waste waters. 5. Chronic liver disease. 6. Personnel of institutions for the mentally handicapped. 7. The military and young people that live in large groups. 8. Parenteral drug users. 9. Risk sexual practices (oral-anal). 10. Domestic contacts and caregivers of infected people. 11. Workers in laboratories that handle the hepatitis A virus, personnel working with primates. 	Two doses of anti-hepatitis A v
Rubella	Vaccinate all unvaccinated woman of child-bearing age or with antirubella antibody levels below protective levels (10-15 IU). Make the most of any	<ol style="list-style-type: none"> 1. Unvaccinated woman of child-bearing age or non-protective antibody levels. 2. In case of an outbreak, immediate vaccinations of all unvaccinated contacts. 	Two doses of triple viral vacci

	contact with the health system to check vaccination status (effective contraception must be guaranteed in the 28-day post-vaccination period).		
Measles	Vaccinate people born after 1966 that cannot accredit immunisation (previous vaccination or having had the disease).	Adults born after 1966 that cannot accredit immunisation or having had the disease.	Two doses of triple viral vacci
Vaccination and immigration	Administer the doses indicated according to our vaccination schedule and first vaccination if there is no evidence of previous doses. Offer counselling to travellers returning to their country of origin.	All immigrants. The target population for each vaccination is the same as the autochthonous population except for: <ol style="list-style-type: none"> 1. Hepatitis B: also vaccinate adults from high-prevalence areas. 2. Hepatitis A: most adults from high-prevalence areas are already immunised. 3. Polio: non-vaccinated adults from countries with the wild poliovirus (Nigeria, Niger, Afghanistan, Pakistan and India). 	The same as in the autochthor Polio vaccination: IM dose after

Screenings

	Recommendation	Screening technique	Target population	Frequency
Obesity	Nutritional education, physical activity, behavioural change strategy to maintain BMI < 30.	Measurement of weight and height, calculation of body mass index (BMI)	Adults	Every 4 years.
Diabetes <i>mellitus</i>	Screening tests in people at risk.	<ul style="list-style-type: none"> - Baseline glycaemia in venous plasma. - Sullivan's test 	<ol style="list-style-type: none"> 1. People aged above 45. 2. People with risk factors for DM or cardiovascular disease <ul style="list-style-type: none"> - Background of DM in first-degree relatives. 	<p>Every 3 years in people aged above 45.</p> <p>Annually in people with DM or cardiovascular disease risk factors.</p>

				<ul style="list-style-type: none"> - Obesity. - Macrosomia or previous gestational diabetes mellitus. - Previous diagnosis of GI or ABG - High-risk ethnic groups (Asians, Afro-Americans, etc.) - HDL Cholesterol \leq 250 mg/dl. - High blood pressure. - Record of vascular condition. - Polycystic ovary syndrome.
High blood pressure	<ol style="list-style-type: none"> 1. Periodical measurement of blood pressure in adults. 2. In the population that comes less do spot-checks. 3. High average blood pressure levels on three consecutive visits are needed for the diagnosis of HBP. 	Measurement of blood pressure with calibrated mercury sphygmomanometer.	Adults	<p>Normal BP (SBP < 130 mmHg and DBP < 85 mmHg): every 4 or 5 years to the age of 40 and every two years thereafter.</p> <p>Normal-high BP (SBP 130-139 mmHg and/or DBP 85-89 mmHg): taken every year.</p>
Hypercholesterolaemia	Periodical determination of total cholesterol serum concentration.	Serum determination of total cholesterol. If a level above 200 mg/dl is detected a complete lipid profile should be performed (total cholesterol, triglycerides and HDL-cholesterol).	Men aged 35 to 75. Women aged 45 to 75.	Every 5 years until the age of 75 (if CT < 200 mg/dl).
Cardiovascular risk	1. Include the	Estimation of	Adults	Continuous.

	<p>systematic estimation of cardiovascular risk.</p> <p>2. Individual and separate assessment of each risk factor.</p> <p>3. Introduction of risk calculators into the computing systems of the office.</p>	cardiovascular risk with the adapted REGICOR function.			
Osteoporosis (OP)	<p>1. Population screening not recommended.</p> <p>2. All women must be informed about osteoporosis, its main risk factors and prevention strategies.</p> <p>3. Active searching for cases by means of OP risk factors is recommended.</p>	Systematic population screening is not recommended.	Women. Diagnostic tests should be addressed in women presenting risk factors: <ul style="list-style-type: none"> - Postmenopause - Low weight (BMI < 20). - Record of fragility fracture in adult age. - Family background of OP or fragility fracture in first-degree relative. - Treatment with corticosteroids. - Active smokers. 	According to clinical criteria.	
Visual impairments	<p>1. Sight screening in people aged above 65 with Snellen's optotypes.</p> <p>2. Individuals with risk factors from glaucoma or who live in high-prevalence places must be referred to specialised care for screening.</p>	Snellen's Optotypes.	Population aged above 65	65-74 years: continue every 2 years. ≥ 75 years: continue every year.	
Hearing impairments	1. Active search for	Question	about	Population aged above 65	65-74 years: continue every 2

	cases by means of anamnesis or whisper test in the elderly.	hearing difficulty. Otoscopy and audiometric study only in patients with hypoacusis.		years. ≥ 75 years: continue every year.
	2. Referral for audiometric studies if convenient.			
Chronic obstructive pulmonary disease	1. Question about smoking and advise giving up. Question smokers of any age about the presence of respiratory symptoms. 2. Forced spirometry and bronchodilatory test (BDT) for people aged above 40 if there are respiratory symptoms or exposure to risk factors (.e.g.: smoking). 3. It is not correct to make a diagnosis on the strength of the clinical symptoms alone or to use the Peak Flow Meter as a diagnostic	Anamnesis. Spirometry and BDT in symptomatic adults.	Population aged above 40 with respiratory symptoms or exposure to risk factors, particularly smoking.	At least one forced spirometry in people above 40 with symptoms. Counselling and continuous monitoring according to clinical criteria.

	method.			
Breast cancer	<ol style="list-style-type: none"> 1. Population screening with periodical mammography in women aged 50 to 69. 2. In risk groups make individual assessment according to personal and family background. 3. Begin screening 5-10 years before population screening age or before the age of the diagnosis of the youngest woman in the family. 	Mammography	Women aged 50 to 69	Every 2 years.
Cervical cancer	<ol style="list-style-type: none"> 1. Begin screening in the 3-year period from the beginning of sexual relations by means of two Pap smears with an interval of one year in women aged 25 to 65. At the age of 25, all sexually active women should 	Pap smear and HPV determination in unsuitable high-risk screening situations:	<ol style="list-style-type: none"> 1. Women aged 25 to 65. 2. Women aged 65 or older with no prior smear. 	Women aged 25 to 65: the first two smears separated by 1 year. If negative continue every 3 years. Unsuitable screening situations: first a double screening.

have entered the programme. If the first two smears are negative, one should be performed every 3 years until the age of 65.

2. Offer double screening with Pap smear plus human papilloma virus (HPV) determination test in unsuitable high-risk screening situations: women aged 40 to 65 without smears in the last 5 years, women above 65 without smears or intervals of more than 5 years before 65.

Colorectal cancer

1. Population screening is recommended as of the age of 50.
2. In risk groups perform individual assessment according to personal and

Estimation of resources and acceptability of the test. The detection of occult blood in stools, sigmoidoscopy or colonoscopy will be decided.

Population aged above 50.

Detection of occult blood in stools every 1-2 years or sigmoidoscopy every 5 years or colonoscopy every 10 years.

		family background. Begin screening 5-10 years before population screening age or before the age of the diagnosis of the youngest woman in the family.			
Prostate cancer		<ol style="list-style-type: none"> 1. Population screening is not recommended. 2. At the request of the individual, inform men aged 50 to 70 years individually on the value of the tests available for them to decide. 3. Assess the risk according to personal and family background. Begin screening 5-10 years before the youngest diagnosis in the family. 	Determination of PSA and rectal palpation.	<ol style="list-style-type: none"> 1. Men aged 50 to 70. 2. As of the age of 45, if there are risk factors (first-degree relatives with prostate cancer, Africans). 	If clinically suspected.
Excessive alcohol consumption		1. Evaluate consumption of alcohol with brief screening tools	<ol style="list-style-type: none"> 1. Semi-structured interview. 2. Systematic questioning on 	<p>Adults.</p> <p>Prioritise risk groups:</p> <ul style="list-style-type: none"> - Adolescents - Men between 20 and 40 . 	Every 2 years.

	<p>followed by clinical assessment, if necessary.</p> <p>2. Warn and help patients to reduce consumption to moderate levels or to abstain. Support and motivate to change behaviour.</p> <p>3. Organise monitoring and repeat counselling.</p>	<p>alcohol consumption (SQAC).</p>	<ul style="list-style-type: none"> - People with symptoms associated with alcohol consumption. - Pregnant women. - Children of alcoholic parents. - People with social problems. - Risk professions (drivers, building, waiters, sales reps, executives...)
Depression	<p>Apply screening to the population in risk situations for depressed mood disorders by means of a semi-structured interview (Goldberg anxiety and depression scale, GADS. Depression scale in geriatrics, GDS, Yesavage, abridged version.</p>	<ol style="list-style-type: none"> 1. Goldberg anxiety and depression scale, GADS. 2. Depression scale in geriatrics, GDS, Yesavage, abridged version. 	<p>Population with record of symptoms or behaviours:</p> <ol style="list-style-type: none"> 1. Prior history of depressive disorders or suicide attempts. 2. Family background of serious mental disorders or suicide attempts. 3. Chronic or severe physical disease. 4. Psychopathological symptoms. 5. Unspecific somatic symptoms. 6. Regular users of psychoactive substances or psychopharmaceuticals. 7. Patients consulting for multiple conditions.

			Population with one or some of the following psychosocial factors: 1. Young adults: matrimonial break-up, pregnancy, birth of a handicapped child, loss of job, loss of parent, emigration, lack of social resources. 2. Adults and the elderly: retirement, loss of physical functions, mourning, loss of a relative, disease in the family. 3. Responsibility for caring for others (e.g. elderly relative). 4. Other psychosocial transitions.	
Urinary incontinence	Active search in the anamnesis in people above 65. Apply preventive measures to the general population, particularly in women of child-bearing age and the elderly	Urinary incontinence screening questionnaire.	Population above 65.	Ask once between age of 65 and 70. Annually as of the age of 70.
Gender violence	There is not sufficient scientific evidence to recommend universal screening. Be on the lookout for signs and symptoms of abuse, and question women on possible abuse.	Anamnesis and physical examination	Women	Question if there are signs or symptoms leading to suspicion.
Violence against the elderly	1. There is not sufficient scientific evidence to recommend	Anamnesis and physical examination.	People above 65 years with risk factors or abuse alarm signs.	Question if there are signs or symptoms leading to suspicion.

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- universal screening, neither on the efficacy of screening instruments nor on the adverse effects of screening or of interventions.
2. We must monitor risk factors and alarm signs.
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Counseling

	Recommendation	Target population	Frequency
Feeding	<ol style="list-style-type: none"> 1. Maintain and increase intake of greens, fruits, fish, dried fruits and nuts and pulses. 2. Maintain and promote the Mediterranean diet (less proportion of meat, regular presence of fruits, olive oil as fat of choice). 3. Prioritise water over other drinks. 	Adults.	Continuous
Physical activity	<ol style="list-style-type: none"> 1. Assess and record the degree of physical activity. Individualise counselling to begin, increase or reinforce. 2. Recommend moderate aerobic or cardiovascular resistance exercise and the mobilisation of major 	Adults	Continuous

	muscle groups 30 or more minutes a day.		
Give up smoking	<ol style="list-style-type: none"> 1. Always record smoking in the medical history. 2. In smokers: <ul style="list-style-type: none"> - Assess willingness to give up the habit and degree of dependence. - Offer clear and individualised advice and help. - Offer monitoring and support during the detoxification process. 	Adults	Continuous
Prevention of sexually transmitted diseases and of infection caused by HIV	<ol style="list-style-type: none"> 1. Active search, education, treatment and guidance for people in a risk situation. 2. Vaccination HBV and/or HAV for people at risk. Consider prophylaxis for accidental post-exposure to HIV with antiretrovirals. 	Adults. Particularly young people or women of child-bearing age.	Continuous
Prevention of accidents in the home and leisure	<p>Prevention of drowning and falling:</p> <ul style="list-style-type: none"> - Fence off private swimming pools and monitor flags. - Promote the use of safety elements. - Preventive counselling in alcohol or drug risk consumers. - Regular exercise with balance and stability training. 	Adults. Particularly young people or women of child-bearing age.	Continuous
Prevention of traffic accidents	<p>Preventive counselling on road safety:</p> <ul style="list-style-type: none"> - Promotion of the adoption of road safety devices and practices. Individualised advice. - Prevention of the consumption of risk substances. - Promotion and participation in 	Adults	Continuous

	community activities to reduce accidents.		
Mouth and dental health	<ol style="list-style-type: none"> 1. Advice on dental hygiene. Use of brush, antiseptics and dental floss. 2. Reduction in the intake of cariogenic food (those containing refined sugars). 3. Recommendation on regular visits to the dentist. At least once a year. 4. Recommendations to pregnant women and parents with schoolchildren on the latter's dental hygiene. 	Adults	At least once a year.
Prevention of cognitive and behavioural disorders in the elderly	<ol style="list-style-type: none"> 1. Population screening is not recommended. 2. If suspected complete clinical assessment and monitoring. 3. Preventive measures: control of cardiovascular risk, control of cause of secondary dementia, socialisation activities, improvement of educational level. 4. Support to caregivers. 	<ol style="list-style-type: none"> 1. Population aged above 65. 2. Caregivers of people with cognitive disorders. 	Continuous
Use of medicines	<ol style="list-style-type: none"> 1. Periodical reassessment of multi-medicated patients. 2. Computerised detection unsuitable medicine consumption and drug interactions. 3. Improvement of treatment compliance: make sure the patient understands the instructions. 	Multi-medicated patients.	At least every 1 or 2 years.
Prevention of the consumption of non-institutionalised drugs	<p>There is no evidence of the efficacy of preventive counselling, but some recommendations would seem to be suitable:</p> <ul style="list-style-type: none"> - Create a climate of trust, 	Adults	Continuous

	<p>individualised guidance, avoid fault-finding behaviours.</p> <ul style="list-style-type: none"> - Positive support to non-drug users. - In consumers: risk and damage reduction strategies. Emphasise the value of abstinence. - Situations of abuse: refer to specialised network. 		
Prevention of skin cancer	<ol style="list-style-type: none"> 1. Avoid excessive exposure to the sun 2. Recommend the use of sunscreens. Avoid sun exposure between midday and 4 pm. 3. Periodical skin check in the presence of risk factors. 	Adults	According to criteria professional
Mental health	<p>Early and integrated intervention in moments of psychosocial transition before the mental disorders become chronic. Promote empathy and communication skills with the patient. Help the patient to take their decisions, respecting their values and resources</p>	Adults	Particularly at times of changes in life.
Prevention of the effects of extreme temperatures	<ol style="list-style-type: none"> 1. Active search, assessment of risk levels according to physical condition, reinforcement of control and monitoring (particularly in summer) of fragile or risk patients: <ul style="list-style-type: none"> - Chronic patients. - Patients with dementia or mental health problems. - Multi-medicated patients. - People with disabilities. - People in precarious social conditions 2. Promote self-care in fragile patients: hydration, control of medicines, ventilation, reduction of exposure 	<ol style="list-style-type: none"> 1. People aged above 65. 2. Fragile people or those in risk conditions: <ul style="list-style-type: none"> - Chronic patients. - Patients with dementia or mental health problems. - Multi-medicated patients. - People with disabilities. - People in 	Annually, from June to September.

to the sun and mobility, etc.
3. Coordination from primary care with
the social services, social and
health centres, mental health
centres and geriatric residences.

precarious social
conditions.