What is depression?

This is a condition of pervasive low mood. It is diagnosed using the ICD-10 or the DSM-5 and the following criteria need to be fulfilled:

1. Symptoms must be present for at least 2 weeks with a change from normal mood and at least two to three core symptoms.
2. Change in mood must not be secondary to drug or alcohol misuse, a medical condition or an adverse life event such as bereavement.
3. There must be impairment of social functioning.

Investigations

Ensure that the patient is really suffering from depression and not an organic disorder. This involves taking a careful history from the patient and the use of questionnaires such as HADS, PHQ-9, GAD-7 followed by investigations depending on patient presentation.

Always assess suicide risk.

- Baseline bloods: FBC, U&E, LFTs (including GGT and MCV for alcohol misuse), TFTs (hypothyroidism may cause low mood),ESR, glucose, calcium, vitamin B12 and folate levels.
- Specific tests are only used if indicated by history and examination (e.g. urine for toxicology, dexamethasone suppression test, syphilis serology etc).
- Radiology: CT or MRI may be indicated in some cases.

Treatment

Depends on the classification of depression. It includes psychological therapies such as CBT, antidepressants and ECT (see Table 1.1, p. 4)

Causes

The cause is a complicated interaction between genetics, neurohormonal and psychosocial factors. A few examples are given below:

- Genetic: family history of depression.
- Neurohormonal: the monoamine hypothesis of depression is popular, which suggests that there are low levels of serotonin, noradrenaline and dopamine in the brain. Other theories include the suggestion of increased cortisol levels.
- Psychosocial: adverse life events and negative childhood experiences such as abuse, the loss of a parent and bullying. Chronic physical illness, unemployment and the lack of a confiding relationship are linked to increased rates of depression.

MAP 1.1. Depression

Symptoms

These may be split into three broad categories: core symptoms, negative thinking and somatic symptoms:

Core symptoms: depressed mood, anergia, anhedonia.

Negative thinking: thoughts of guilt, low self esteem, thoughts of suicide and death, poor concentration.

Somatic symptoms: decreased weight (increased weight seen in atypical depression), sleep disturbance with early morning waking, decreased libido, constipation, psychomotor retardation or agitation.

These symptoms may be used to classify depression as mild, moderate or severe:

Classification	Presentation	Somatic or psychotic symptoms
Mild (4–5 symptoms)	Can continue with daily tasks	+/– somatic symptoms
Moderate (6–7 symptoms)	Real difficulty in completing daily tasks	+/– somatic symptoms
Severe (8–10 symptoms)	Unable to complete daily tasks	+/– psychotic symptoms

Psychotic symptoms are mood congruent or incongruent:

Mood congruent:

- Delusions: of poverty, guilt, punishment; if the patient holds the delusion that they are dead, then this is known as Cotard's syndrome.
- Hallucinations:
  - Auditory: usually derogatory voices.
  - Olfactory: rotting fruit/flesh.
  - Visual: tormentors.

Mood incongruent: thought insertion or withdrawal.

TABLE 1.1. Treatment of depression. Treatment depends on the classification of depression.

Classification of depression	Method of treatment
Mild	**Conservative therapy** This is a 'watchful waiting' approach and involves: • An exercise regime: the current recommendations are three times a week for 45 minutes lasting 10–12 weeks • Alcohol and lifestyle advice • Sleep hygiene • Guided self help
Moderate – severe	**Conservative therapy:** • An exercise regime as above • Psychological therapies (e.g. cognitive behavioural therapy [CBT], which challenges the patient's thoughts and feelings in order to change them), counselling, interpersonal psychotherapy, dynamic therapy **Medical therapy:** • Antidepressants (see Table 1.2, p. 6). Most patients are started on an SSRI first line • If this initial therapy does not work, patients may be switched to alternative antidepressants, have their therapy augmented with antipsychotic or antiepileptic medication by a specialist or be referred for ECT (usually 6–12 sessions, twice weekly). The pathway followed depends on NICE and local guidance

TABLE 1.2. **Antidepressants.**

Class of antidepressant	Examples	Uses	Side effects
Selective serotonin reuptake inhibitors (SSRIs)	Citalopram Sertraline (often used in those who have previously had a myocardial infarction) Fluoxetine (has a long half-life) Paroxetine	**DOBS:** Depression OCD Bulimia Social phobias	• GI upset • Sexual dysfunction • Hyponatraemia in the elderly • Discontinuity syndrome: shivering, anxiety, headache, nausea, dizziness • Serotonin syndrome: muscle rigidity, seizures, cardiovascular collapse, hyperthermia. Treat serotonin syndrome with cyproheptadine (a 5-HT_{2A} receptor antagonist)
Tricyclic antidepressants (TCAs)	Amitriptyline Imipramine Clomipramine	**DOBS:** Depression OCD (clomipramine) Bed wetting (imipramine) Sometimes neuropathic pain (amitriptyline)	• Linked to receptor blockade: ○ α_1 antagonist: postural hypotension ○ Antimuscarinic: dry mouth, urinary retention, constipation, blurred vision ○ Antihistaminergic: weight gain, drowsiness • Toxicity = the **3Cs:** Convulsions Coma Cardiotoxicity
Serotonin noradrenaline reuptake inhibitors (SNRIs)	Venlafaxine Duloxetine	Depression Generalized anxiety disorder (venlafaxine) Peripheral neuropathy (duloxetine)	• Increased blood pressure • Nausea • Sedation

Monoamine oxidase inhibitors (MAOIs)	*Selegiline* Moclobemide (reversible inhibitor of monoamine oxidase A [RIMA])	**HAD:** Hypochondriasis Anxiety Depression Selegiline is a MAO-B inhibitor that is licensed for use in Parkinson's disease	• Antimuscarinic: dry mouth, urinary retention, constipation, blurred vision • The Cheese Reaction – hypertensive crisis that occurs with ingestion of tyramine containing substances (e.g. cheese, pickled herring, soybean products, etc.)
α_2 antagonist	Mirtazapine	Depression PTSD	• Increased appetite and weight • Dry mouth • Sedation
Noradrenaline reuptake inhibitors (NRIs)	Reboxetine	DAP: Depression ADHD Panic disorder	• Antimuscarinic: dry mouth, urinary retention, constipation, blurred vision • Antihistaminergic: weight gain, drowsiness
Tetracyclics	Maprotiline	Depression	• Sedation • Postural hypotension