

Blood Pressure and Cholesterol

Hannah Beba and Patrick Holmes
@_diabetes101

What is blood pressure?

Blood pressure is the force your heart needs to push blood around your body.

Systolic blood pressure is the force needed to push blood out of your heart



130/80
mmHg



Diastolic blood pressure is the pressure when the heart is relaxed



Millimetres of mercury is the units of measurement

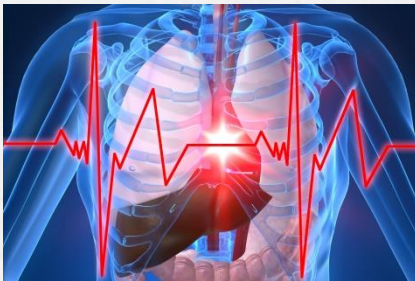
Tweet Poll

Targets for blood pressure are individualised, do you know your target blood pressure ? Tell us about your experiences with this.

- yes
- no

What does it mean if I have high blood pressure ?

If you have high blood pressure, your heart has to work harder to pump blood around your body



Tweet poll

How do you measure your blood pressure ?
Tell us about your experiences with this.

- Home blood pressure monitoring
- Clinic blood pressure monitoring
- Both

How do I know if I have high blood pressure ?

Mostly asymptomatic so it is REALLY important you monitoring your own blood pressure or you go for blood pressure checks



Things you can and cannot control

Things you might be able to control	Things you cannot
Salt intake	Age
Activity levels	Family history
Maintaining a healthy weight	Ethnicity
smoking	
Alcohol	
stress	
medications	

Tweet Poll

For those of you out there with high blood pressure what has worked for you?

- (a) Exercise
- (b) Dietary changes
- (c) Stopping smoking
- (d) Medications

Common Medications used to treat hypertension in those living with diabetes

ACE (angiotensin converting enzyme).
Inhibitors

The names of these medicines commonly end in 'pril' (for example, lisinopril, perindopril and ramipril).

ARB (angiotensin receptor blocker)

The names of these medicines commonly end in 'artan' (for example, candesartan, losartan and valsartan).

CCB (calcium channel blocker)

The names of these medicines commonly end in 'dipine' (for example, amlodipine, felodipine and lacidipine).

Diuretics

Indapamide

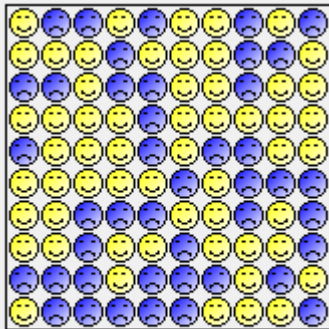
Tweet Poll

How many of you are taking the medications below for your blood pressure ? Tell us about your experiences with your medications.

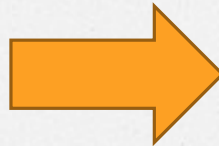
- (a) ACE inhibitors (e.g. ramipril)
- (b) ARBs (e.g. losartan)
- (c) Calcium Channel Blockers e.g. amlodipine
- (d) Diuretics

Case Study

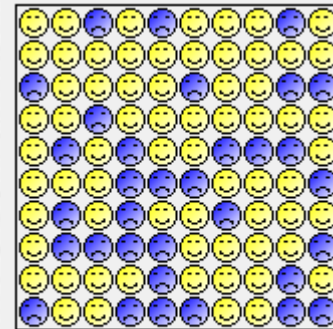
Mr BP, aged 75, non-smoker, type 2 diabetes has a blood pressure of 180/98mmHg. He makes some lifestyle changes and has additional medications added bringing his blood pressure to 130/80mmHg



Risk of
a heart attack or stroke



If you treated 100 people like Mr BP, ten less people would have a heart attack or stroke over a 10 year period



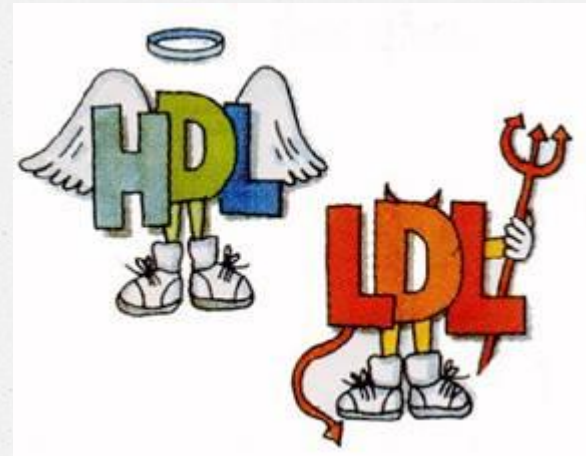
Risk of
a heart attack or stroke

What is cholesterol ?

Cholesterol (lipids) is a type of fat in the blood.

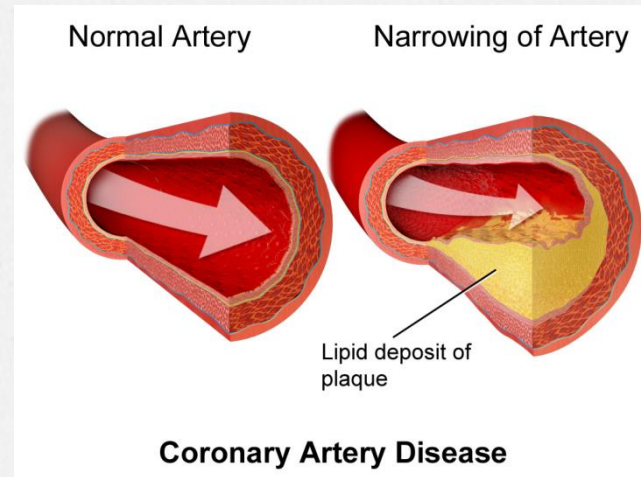
HDL (high-density lipoprotein) is good cholesterol which helps protect you from heart disease.

Both triglycerides and LDL (low-density lipoprotein) are bad for you



Why is high cholesterol a problem ?

Fatty material can build up in the blood vessels supplying the brain and heart, making them narrower. This can lead to a blockage in blood vessels, which can cause a heart attack or stroke



Things you can and cannot control

Things you might be able to control	Things you cannot
Activity levels	Age
Maintaining a healthy weight	Family history
smoking	Ethnicity
Alcohol	
medications	

Assessing need for treatment

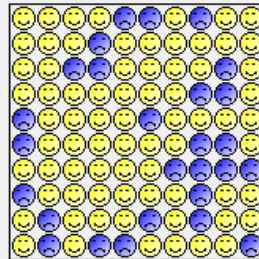
- Risk score – 10 year risk of having a heart attack or stroke

Your results

Your risk of having a heart attack or stroke within the next 10 years is:

27.1%

In other words, in a crowd of 100 people with the same risk factors as you, 27 are likely to have a heart attack or stroke within the next 10 years.



Risk of
a heart attack or stroke

Twitter Poll

How many of you are taking the medications below for your cholesterol? Tell us about your experiences with your medications

- (a) Statins
- (b) Ezetimibe
- (c) PCSK9 (alirocumab or evolucumab)

Treatments

- Statins – Atorvastatin, Rosuvastatin, pravastatin, simvastatin
- Ezetimibe
- PCSK9 inhibitors (injectable) therapies e.g. alircumab or – only for those with genetic changes which lead to high cholesterol e.g. familial hypercholesterolemia or those who are at very high risk and may not tolerate statins

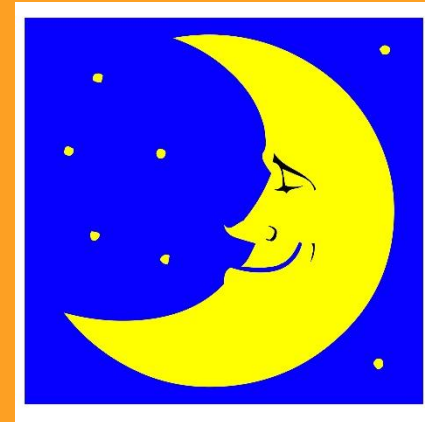
Statin Trouble Shooting

Some statins you can take at any time in the day where as others you have to take at night

Atorvastatin and Rosuvastatin can be taken day or night



Simvastatin, Pravastatin and Fluvastatin should only be taken at night



Statin Troubleshooting

Some statin is better than none



Take statin
once
weekly



Take statin
twice
weekly (e.g.
Monday
and Friday)



Take statin
three times
weekly (e.g.
Monday,
Wednesday
and Friday)



Take statin
four times
a week (e.g.
alternate
days)



Take statin
five times a
week (e.g.
take on
weekdays
and rest on
weekends)



Take statin
six times a
week (e.g.
take every
day except
Sunday)



Take statin
every day

