Mild Hypertension

The majority of people diagnose as hypertension have mild hypertension.

Mild hypertension is defined as a systolic (upper figure) of 140 to 159 systolic and diastolic (lower figure) of up to 90 to 99 diastolic. It is very common affecting millions of people in the UK. Keep in mind that blood pressure goes up with age, so it far less significant in older age groups.

Also blood pressure is often higher when taken in hospital or at doctor's surgery (what is called white coat hypertension), so it is essential to have a series of home readings done (which can be much lower) before making a diagnosis gf hypertension.

There is no question that treating severe hypertension dramatically reduces the risk of a stroke but the question is does treating mild hypertension make much difference? –The huge MRC trial involving 17,000 people gave us an answer. It looked at patients with a BP with a diastolic between 90 and 110. Did it did reduce strokes? Yes, but only marginally. It improved the chance of not having a stroke from 97.4% to 98.6%. Once the maths was done, they found it would take 9000 years of treatment to prevent one death. This minor benefit needs to be balanced against the many common side-effects of treatment.

More recently, the independent Cochrane Collaborative looked at mild hypertension again (BP of 140-159 systolic, 90-99 diastolic), examining 5 trials involving 8,919 patients. The result was that treatment made no difference to either cardiovascular events (such as heart attacks) or strokes.

A study of 93,676 women with hypertension in 2004 compared those taking one drug with those taking several. But they were surprised to find found some of the women were not taking their drugs. These women had systolic which were BPs 8-16 mm higher than those taking drugs and this should have put them at greater risk. In fact, they had 13% less heart attacks and 5% less strokes. http://doi.10.1001/jama/292.23.2849.

A meta-analysis of 18 studies in 2019 with 92,567 participants, making up over 1000 patient years of treatment found that treating systolic blood pressure in the 130-140 range for primary prevention had no benefit in terms of reducing mortality or reducing major cardiovascular events but had significant adverse effects. 23% of patients had to discontinue medication due to adverse events and 73% had adverse effects related to low blood pressure.

Those with an underlying cardiac disease had a 9% reduction in all-cause mortality and a 15% reduction in major cardiac events but this group but twice as many patients had to stop medication due to adverse effects Brunstrom M, Calberg B. (2019), BMJ Open; 9(9): e026686.

What do we make of this. My take on it is that although a slight rise in blood pressure may increase your risk of heart attacks and strokes a fraction,

drugs increase that risk even more, so be careful. Drugs can sometimes do more harm than good.

A study from the UK Primary Care following 38,286 people between 18 and 74 with blood pressures between 140/90 and 159/99 (mild hypertension) and no known risk factors for heart disease, found there was no benefit in the treated group in terms of mortality or lowered cardiovascular event but there were increased adverse events (syncope, electrolyte disturbances and kidney injury). JAMA Intern Med ,2018 Dec 1;178(12):1626-1634.

A study from the Netherlands of patients over 85, found those treated for hypertension had a higher mortality and faster cognitive decline (worsened thinking ability) comparted to those who were not treated.

My conclusion, looking at all the evidence, is that if there are no additional factors like heart disease or diabetes, then there is little point in treating blood pressure unless levels are consistently above 160/100. There will be no benefit and there will be a potential for harm.