

UK under pressure

A national study of
blood pressure by
Lloydspharmacy

Lloydspharmacy
Healthcare for **life**



Foreword

Lloydspharmacy conducted a piece of research earlier this year to find out to what extent UK adults are leading healthy and active lifestyles. While we all know that there are issues with poor diet, inactivity and obesity in the UK, we were surprised at the extent to which adults were compromising their health, but still considered themselves 'healthy'.

The knowledge about their own health was also poor, with a third not knowing what they weigh, seven out of 10 adults never having had their blood pressure checked and six in 10 admitting that they don't know their cholesterol level.

We were particularly concerned by the high proportion of people who hadn't had a blood pressure test for some time and in some cases not at all. High blood pressure often has no symptoms until it becomes extremely severe and is the biggest killer through stroke and heart attacks.

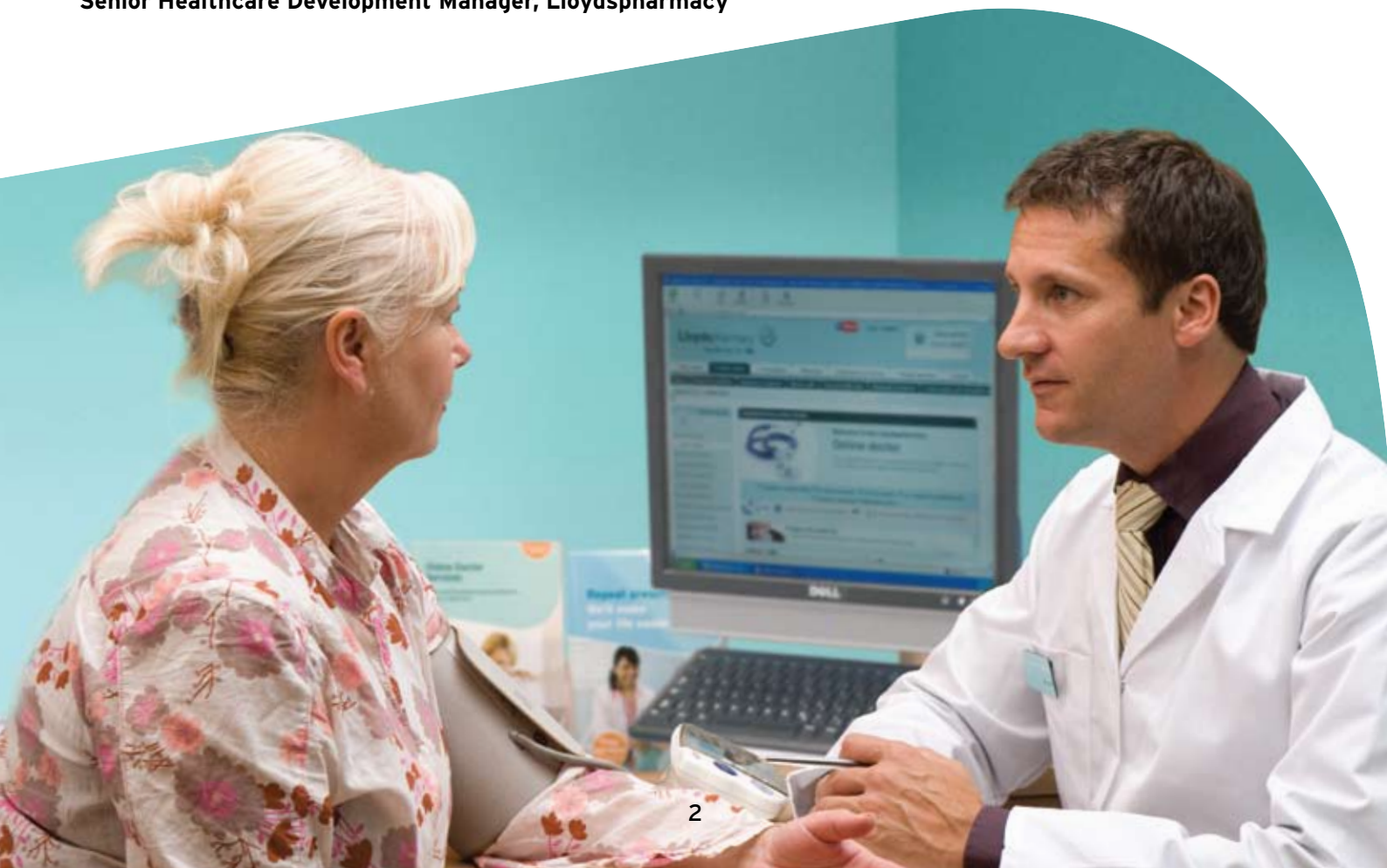
Lloydspharmacy has been offering free blood pressure checks in our pharmacies for many years and have conducted around 1.5 million tests to date. Earlier this year, we launched the Healthy Heart campaign to raise awareness of high blood pressure, promoting Lloydspharmacy as 'experts' in heart health and supporting condition management within the local community. The campaign also incorporated the 'Heart Health Sofa Tour', which visited a number of cities across the UK to test the nation's blood pressure and encourage people to regularly monitor their blood pressure in between GP appointments.

This report provides an analysis of the blood pressure checks that we conducted on the tour and in our pharmacies since the beginning of this year. The results give cause for concern - particularly the proportion of young people showing signs of high blood pressure.

It's important to note that the result of one blood pressure test is by no means conclusive. However, with an average blood pressure reading for the UK which is well above the recommended 120/80 and significantly high numbers showing signs of hypertension, this is certainly an area that requires further investigation.

It is also important that all those involved in the provision of healthcare encourage adults to get their blood pressure checked and take steps to reduce it if they have a high reading to prevent more serious health issues developing.

Shafeeque Mohammed
Senior Healthcare Development Manager, Lloydspharmacy



Executive summary

This study is an analysis of 8,586 blood pressure tests, which were conducted between January and June 2010 both in pharmacy and during the Lloydspharmacy Healthy Heart Sofa Tour, which visited a number of major cities across the UK.

Under pressure?

- The average blood pressure of all those tested was 140/86, significantly above the recommended reading of 120/80.
- Only one in four of those tested has ideal or normal blood pressure.
- More than half of those tested (56%) fell into the hypertensive category, ranging from mild to severe.
- Almost one in 10 (8%) of all those tested showed signs of severe or very severe hypertension.

UK hotspots

Analysis of the test revealed some blood pressure 'hotspots' around the UK, including:

- Bristol
- Cardiff
- Liverpool
- Manchester
- Southampton

Not just an age old problem

- 35% of those under the age of 34 showed signs of some form of hypertension, ranging from mild to very severe.
- 70% of those over the age of 55 showed signs of some form of hypertension, ranging from mild to very severe.
- 1 in 10 of those over the age of 55 showed signs of severe or very severe hypertension.

Men feel the pressure

- 68% of men showed signs of some form of hypertension, compared to 54% of women.
- Only 5% of men has ideal blood pressure.

The UK's blood pressure

From 8,586 blood pressure tests across the UK, the average reading came out at 140/86, pushing the country into the pre-hypertensive category.

Fig 1 - Breakdown by Region

Area	% showing signs of hypertension	Average blood pressure
Scotland	58	141/86
Yorkshire and Humberside	57	138/85
North East	62	141/86
North West	57	141/85
Wales	59	140/86
West Midlands	56	140/86
East Midlands	59	139/86
East of England	63	143/86
South East	57	140/86
South West	55	143/85

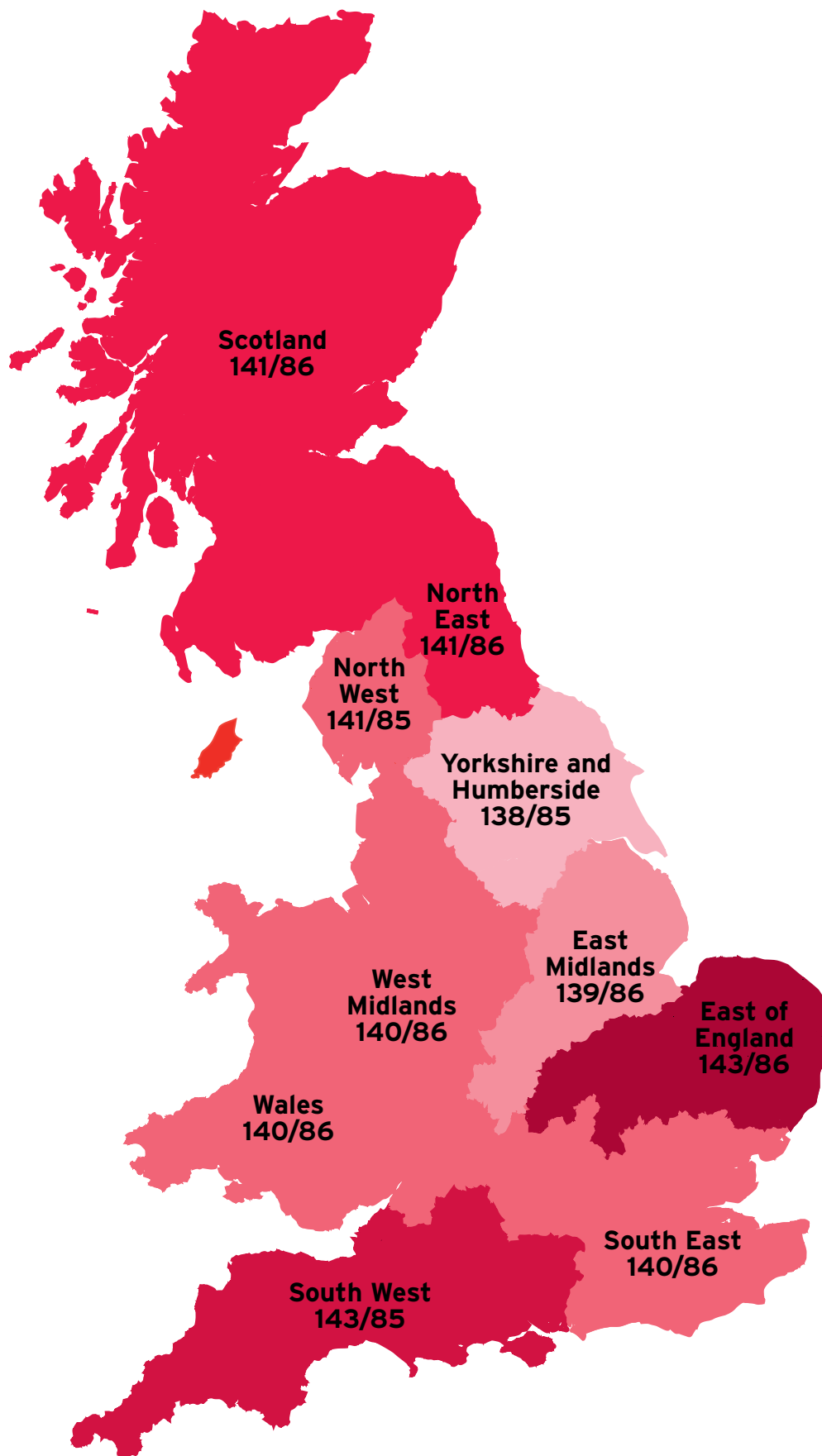
Fig 2 - Breakdown by City

City	% showing signs of hypertension	Average blood pressure
Birmingham	56	137/85
Bristol	59	141/86
Cardiff	59	138/87
Leeds	59	137/88
Liverpool	58	139/86
London	51	137/86
Manchester	59	140/86
Sheffield	58	140/85
Southampton	66	141/91
Stoke on Trent	58	141/85
Wolverhampton	60	140/85

The nation's blood pressure

It's clear that instances of high blood pressure are prevalent across the UK, but some 'hotspots' did emerge, with Bristol, Stoke-on-Trent and Southampton recording the highest average blood pressure reading. The chart below shows the average blood pressure in each region.

Fig 3 Regional breakdown of average UK blood pressure





Not just an age old problem

As anticipated the results did show a correlation between higher blood pressure reading and old age, but, as the table below shows, there was a significantly high proportion of younger people with readings that put them in the hypertensive category.

Fig 4 - Breakdown by age

Age base	Total	16-24	25-34	35-44	45-54	55-64	65-74	75+
Hypotension	0%	0%	0%	0%	0%	0%	0%	0%
Ideal	11%	27%	23%	20%	12%	6%	4%	4%
Normal	13%	27%	21%	18%	13%	13%	9%	8%
High normal	18%	18%	18%	18%	19%	19%	17%	14%
Hypertension (mild)	32%	21%	25%	27%	30%	36%	38%	37%
Hypertension (moderate)	17%	5%	9%	11%	18%	18%	21%	24%
Hypertension (severe)	8%	2%	4%	6%	8%	7%	10%	13%
Hypertension (very severe)	0%	1%	1%	0%	1%	1%	0%	0%

Men feel the pressure

Both men and women in the over-55 age category showed higher blood pressure readings, but the general trend showed higher readings among male patients.

Fig 5 - Breakdown by gender

Gender base	Total	Female	Male
Hypotension	0%	0%	0%
Ideal	11%	14%	5%
Normal	13%	14%	11%
High normal	18%	18%	17%
Hypertension (mild)	32%	30%	37%
Hypertension (moderate)	17%	16%	21%
Hypertension (severe)	8%	8%	9%
Hypertension (very severe)	0%	0%	1%

Fig 6 - Gender cross-referenced by age (female patients)

Gender and age base	16-24	25-34	35-44	45-54	55-64	65-74	75+
Hypotension	0%	0%	0%	0%	0%	0%	0%
Ideal	37%	31%	27%	15%	7%	5%	5%
Normal	28%	23%	20%	15%	15%	9%	7%
High normal	15%	15%	18%	21%	20%	18%	14%
Hypertension (mild)	16%	21%	22%	27%	34%	37%	36%
Hypertension (moderate)	2%	7%	9%	14%	17%	21%	24%
Hypertension (severe)	1%	2%	4%	7%	7%	11%	13%
Hypertension (very severe)	1%	0%	0%	1%	1%	0%	0%

Fig 7 - Gender cross-referenced by age (male patients)

Gender and age base	16-24	25-34	35-44	45-54	55-64	65-74	75+
Hypotension	0%	0%	0%	0%	0%	0%	0%
Ideal	8%	6%	6%	5%	4%	3%	3%
Normal	24%	17%	14%	9%	9%	9%	8%
High normal	21%	21%	19%	15%	17%	16%	14%
Hypertension (mild)	31%	33%	35%	34%	40%	41%	38%
Hypertension (moderate)	13%	13%	16%	26%	22%	22%	24%
Hypertension (severe)	2%	8%	9%	11%	8%	9%	13%
Hypertension (very severe)	0%	2%	1%	1%	0%	0%	0%

What is blood pressure?

Blood pressure is the force it takes the heart to pump blood around the body through the blood vessels and constitutes one of the principal vital signs of life, which also include heart beat, rate of breathing and temperature.

What causes high blood pressure?

When our blood vessels become clogged due to a build-up of cholesterol and fat, the heart must work twice as hard to pump enough blood to the vital organs. This then causes blood pressure to surge. A person's lifestyle also has a major effect on their blood pressure. There are certain lifestyle choices that can increase the risks of high blood pressure. These include:

- Smoking
- Lack of physical activity (a sedentary lifestyle)
- Obesity
- Unhealthy diet
- Excess alcohol

Why is high blood pressure worrying?

As the pressure increases inside of the arteries, veins and capillaries, the heart becomes even more overworked (British Heart Foundation 2008). Over time, the heart grows larger in an effort to compensate for the extra workload and eventually becomes weaker.

Both high blood pressure and pre-hypertension damages the blood vessels. This in turn increases the risk of stroke, kidney failure, heart disease and heart attack.

Diseases of the heart and circulatory system are the main causes of death in the UK and account for almost **198,000** deaths each year. Cardiovascular disease accounts for more than one in three deaths (**35%**) each year (British Heart Foundation 2008).

How do I know if I have high blood pressure?

People with high blood pressure often have no symptoms, which is why regular monitoring is so important. An individual's blood pressure is expressed as systolic/diastolic blood pressure, for example, 120/80.

Systolic pressure - this is the pressure in the arteries when the heart contracts

Diastolic pressure - this is the pressure in the arteries when the heart rests between each heartbeat.

Our blood pressure should be at or below 120 over 80 (120/80). This is the recommended blood pressure for people wishing to have good health. At this level, there is a much lower risk of heart disease or stroke.

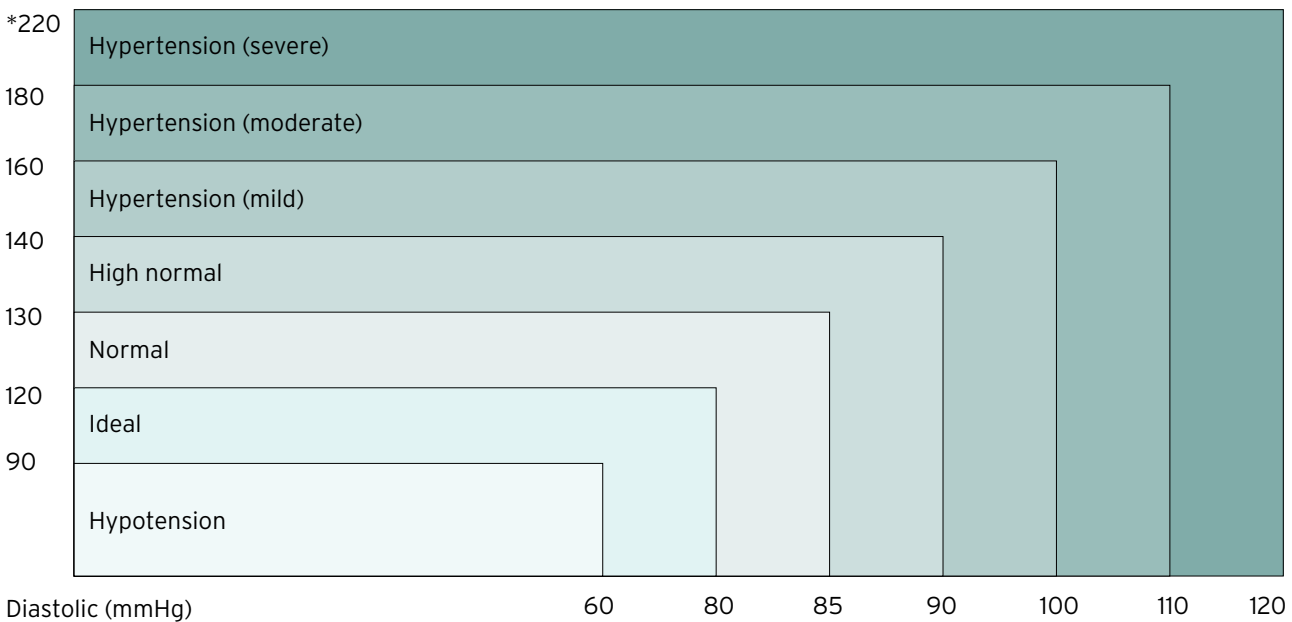
The graph on the opposite page applies to adults aged 18 and above, not taking antihypertensive drugs and not actually ill.



Classification of blood pressure

Fig 8 - Classification of blood pressure

Systolic (mmHg)



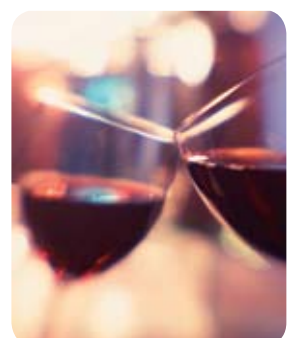
* A reading above 220/120 is classed as very severe hypertension

How can an individual lower their blood pressure?

Monitoring blood pressure allows people to keep a record of any changes and can be done at home using a blood pressure monitor.

Changes to a person's lifestyle can help lower your blood pressure. For example, the following should happen:

- Giving up smoking
- Losing weight if overweight
- Exercising regularly
- Eating a healthy diet, which includes lots of fruit and vegetable and is low in fat
- Limiting your sodium, alcohol and caffeine intake



The expert's view

"Lack of blood pressure control is the main cause for the unacceptable increase in stroke and cognitive impairment in the aging population. Recent evidence shows that although prescribing of blood pressure-lowering drugs has increased, blood pressure control has not improved."

Professor O'Brien, Professor of Cardiovascular Pharmacology, The Conway Institute of Biomolecular and Biomedical Research, University College Dublin.

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