

What is hypertension?

- Systolic BP >140 mmHg
- Diastolic BP > 90 mmHg
- Not on BP medications
- High on at least two visits



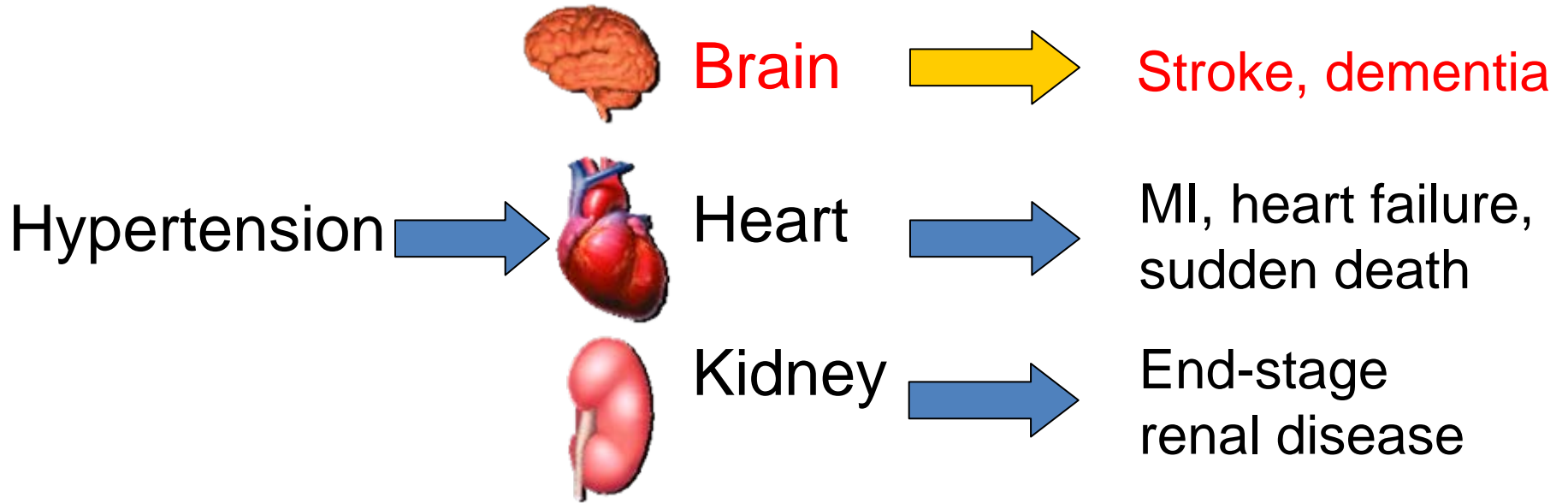
Hypertension-some Myths

- Hypertension is nothing to do with “tension”
- Hypertension usually causes NO symptoms
- Headaches CAN be due to high blood pressure but usually are not

Some More Facts

- Common
- 3 million Australians over 25
- 6% of problems for GP's
- Men > Women
- <50% cases diagnosed
- Lack of adequate treatment in those with diagnosis

Consequences of Hypertension



Stroke

The Consequences of Stroke

- 5.5 million people worldwide died from stroke in 2001
- 15 million people worldwide survive minor strokes each year
 - Up to 30% of stroke survivors are permanently disabled
 - The consequences of stroke also impact the families of stroke survivors

Factors That Can Increase Risk of Stroke/Dementia

Untreatable

- Age
- Family history
- Male sex
- Prior TIA or stroke

Treatable

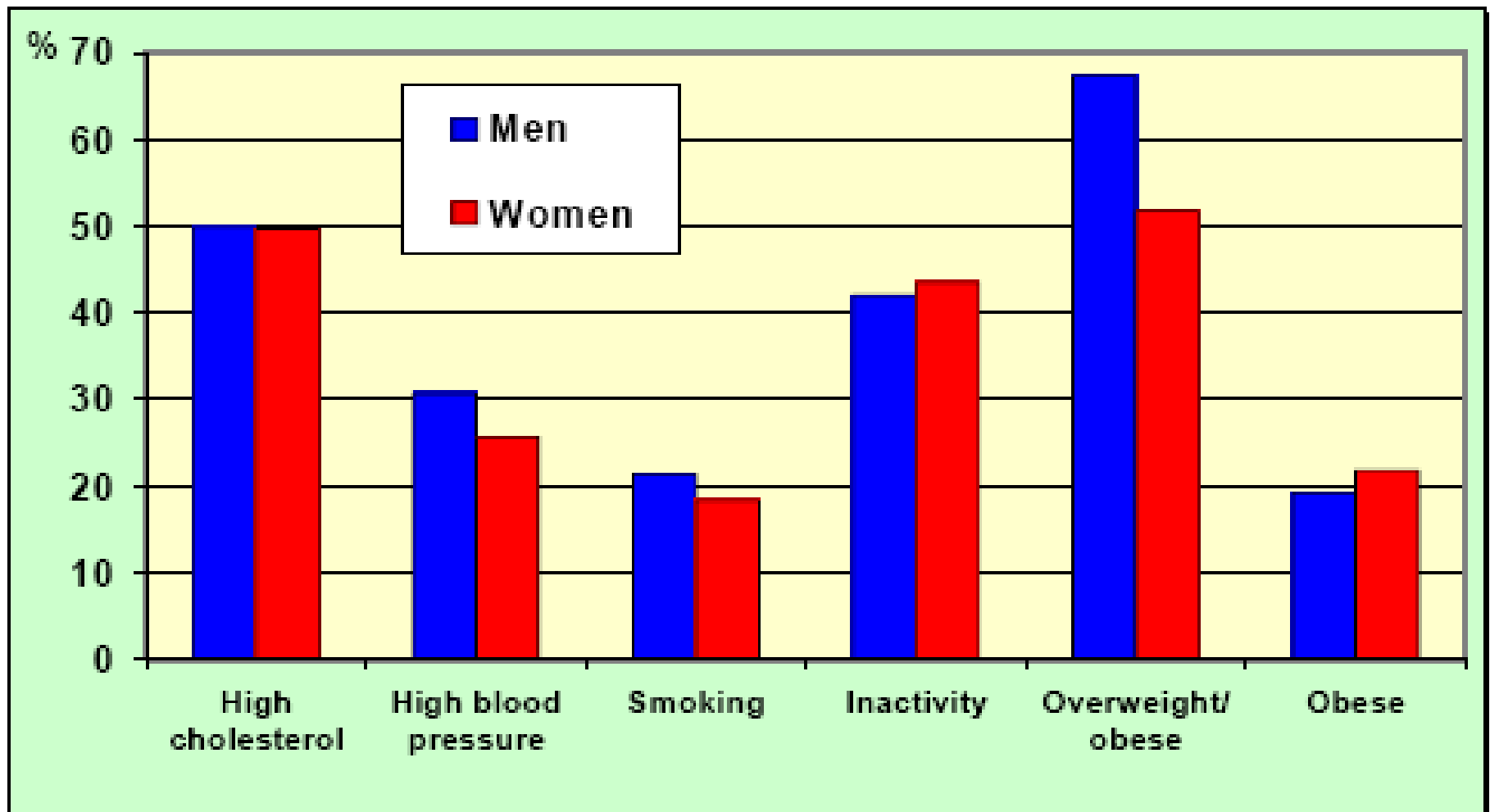
- **Hypertension**
 - Worldwide, 62% of strokes are caused by hypertension
 - Stroke risk increases as blood pressure increases
- Diabetes
- High Cholesterol
- Obesity
- Smoking
- Atrial fibrillation

Other Consequences of HT

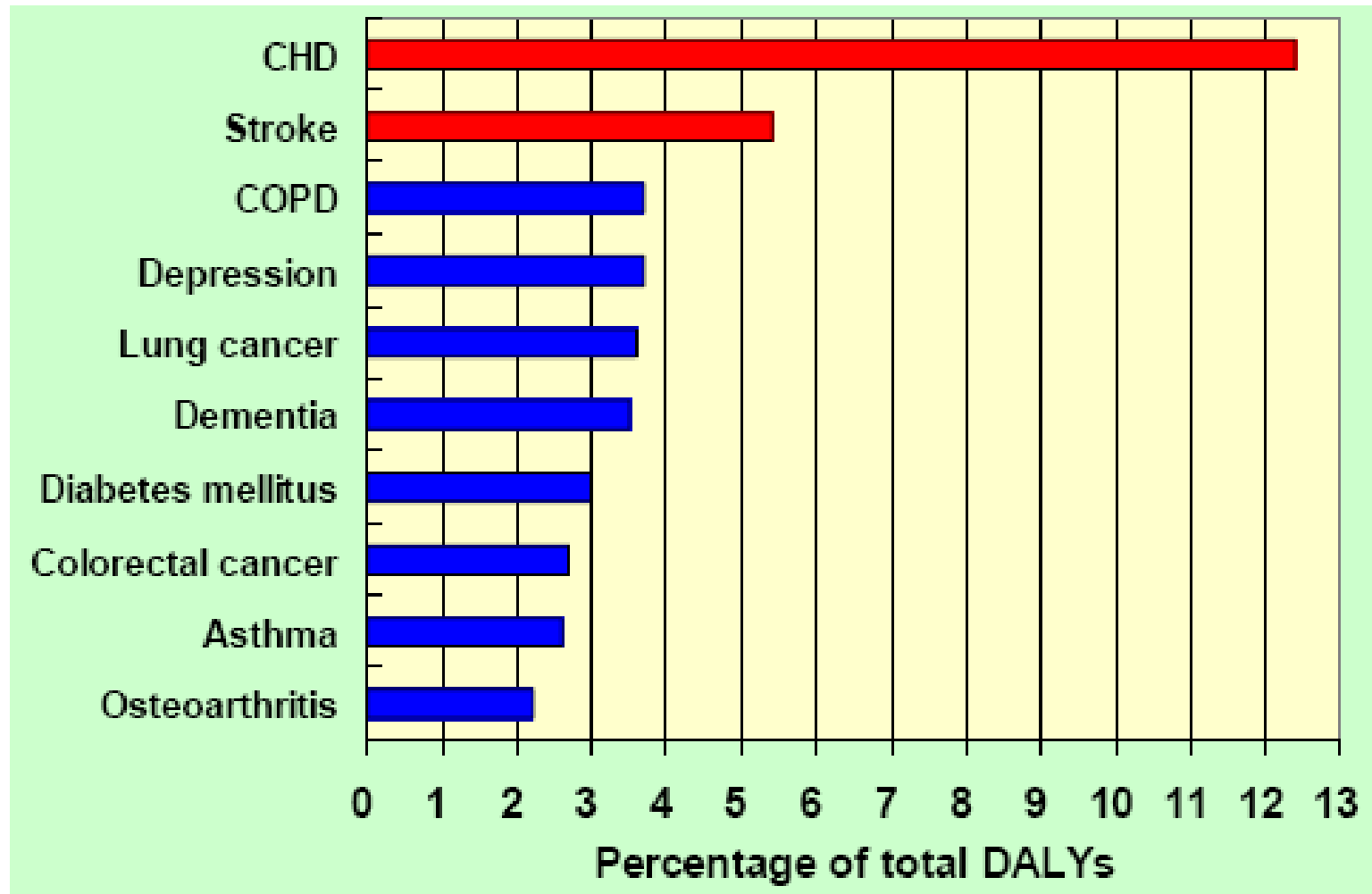
- Coronary disease, heart attack
- Heart failure
- Kidney disease

Concept of Risk Factors

RISK FACTORS- Australia 1999-2001



10 Leading Causes of Burden of Disease-Australia



Treatment of HT

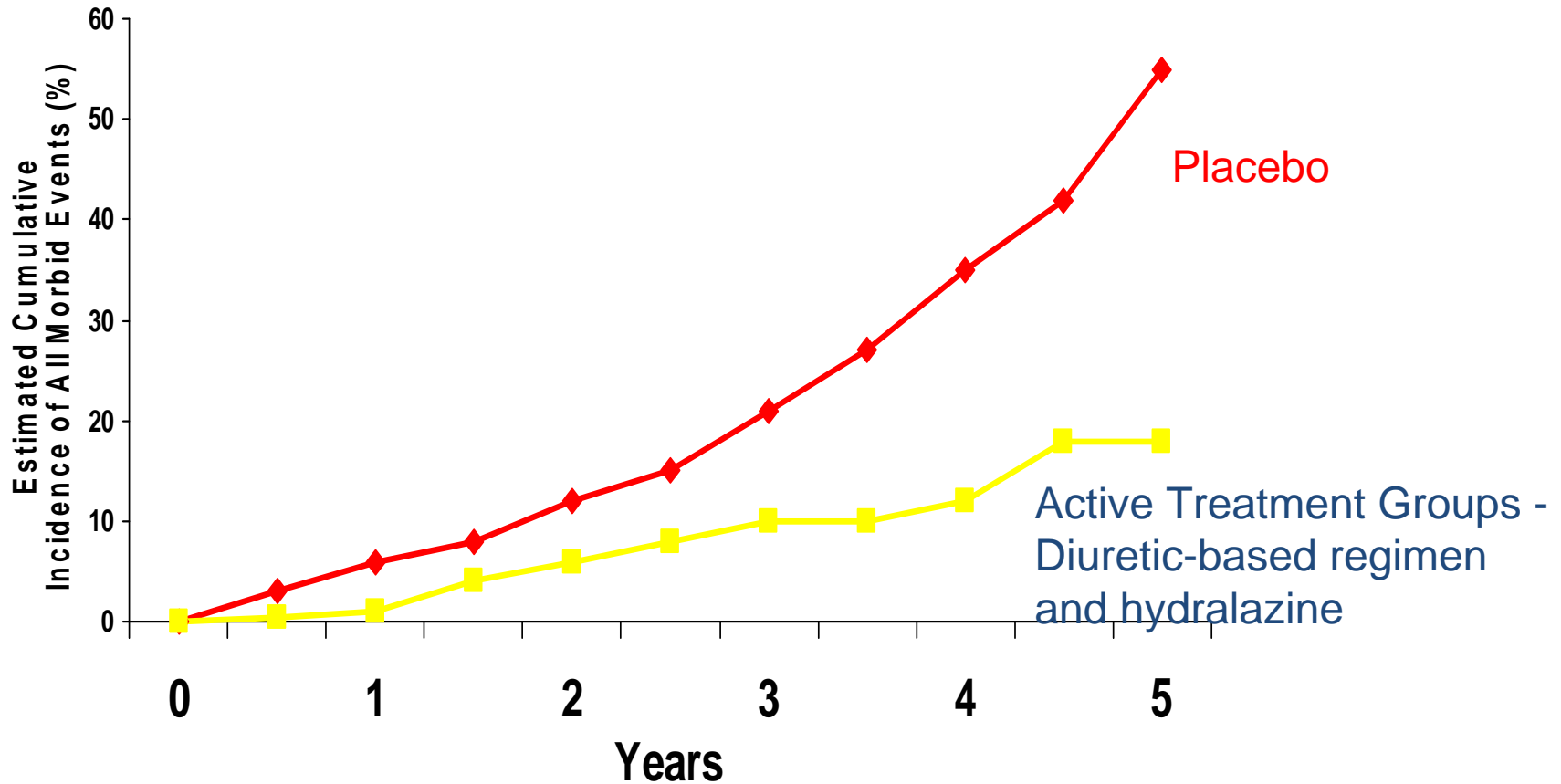
Does Treatment Help?

In four separate trials, β blockers and diuretics significantly reduced the risk of stroke compared with placebo			
Trial	N	Events, active treatment/control	Relative risk (95% CI)
STOP-Hypertension ¹	1627	29/53	0.53 (0.33, 0.86) p=0.0081
MRC ²	17,354	60/109	0.45 (0.25, 0.60) p<0.01
MRC-O ³	4396	101/134	0.25 (0.03-0.42) p=0.04
Coope and Warrender ⁴	884	23/44 (includes TIAs)	0.58 (0.35-0.86) p<0.03

1. Dahlöf B et al. *Lancet* 1991;338:1281-1285. 2. Medical Research Council Working Party. *BMJ* 1985;291:97-104. 3. Medical Research Council Working Party. *BMJ* 1992;304:405-412. 4. Coope J, Warrender TS. *BMJ* 1986;293:1145-1151.

Hypertension Treatment Significantly Reduced Mortality and Morbidity

VA Cooperative Study Group – Estimated Cumulative Incidence of All Morbid Events Over 5 Years



HT Treatment and Dementia cont

- Interestingly, there is some evidence that treatments for HT may have a benefit of their own in reducing dementia...more research needed

When to Intervene

- Lifestyle modification at very low threshold
- Drugs etc....based on thorough assessment of absolute risk

Lifestyle Advice

- Indicated for all patients with hypertension, regardless of drug therapy:
 - 30 minutes moderate activity on most days of the week
 - Smoking cessation
 - Healthy weight: waist < 94 cm for men and < 80cm for women, BMI < 25 kg/m²
 - Dietary salt restriction: ≤ 4g/day
 - Limited alcohol: ≤ two standard drinks per day for men or ≤ one standard drink per day for women.



Drug Treatments

- The benefit from drug treatments is mainly due to BP lowering (not mechanism of action)
- In uncomplicated hypertension, these are equally effective as first-line treatment:
 - ACE inhibitor (or angiotensin II receptor antagonist)
 - Calcium channel blocker
 - Low-dose thiazide diuretics
(for those aged 65 years and older)

Drug Treatment cont.

- How to achieve target BP:
 - Start with lowest dose of first drug
 - If drug not tolerated, change to a different class
 - If target BP not reached, add second low dose drug (different class)
 - If target BP still not achieved and both drugs well tolerated, increase doses
 - Trial each dose regimen for at least 6 weeks
- If necessary, use drugs from different classes in combination to achieve target BP.
- About **50 – 75%** of patients will not achieve BP targets with one drug