

# LIVING WITH DIABETES

Successful Ageing Seminar

**diabetes**

SOUTH AUSTRALIA

*Living healthy, living life.®*



# The Bitter Facts

- There are 80,000 SA's diagnosed with diabetes and a further 80,000 are undiagnosed or have impaired glucose.
- 275 people in Australia are diagnosed with Type 2 diabetes every day.
- The number of people with diabetes has tripled since 1981.
- Fastest growing condition in the world.

# The Bitter Facts

- 60% of Australian adults and 30% of Australian children are overweight or obese
- 63% of Australians understate their perceived risk of Type 2 diabetes

# The Bitter Facts

- Diabetes is the second most common cause for commencing renal dialysis.
- Diabetes is the most common cause of non-injury lower limb amputation – 2,600 in Australia in 2004.
- Diabetes is the most common cause of blindness in people under 60yr and retinopathy affects one in six people with diabetes.

# Pre diabetes is also known as:

- Impaired fasting glucose (IFG)
- Borderline diabetes
- Impaired glucose tolerance (IGT)
- Pre diabetes affects 16% of Australian adults

# What Does It Mean?

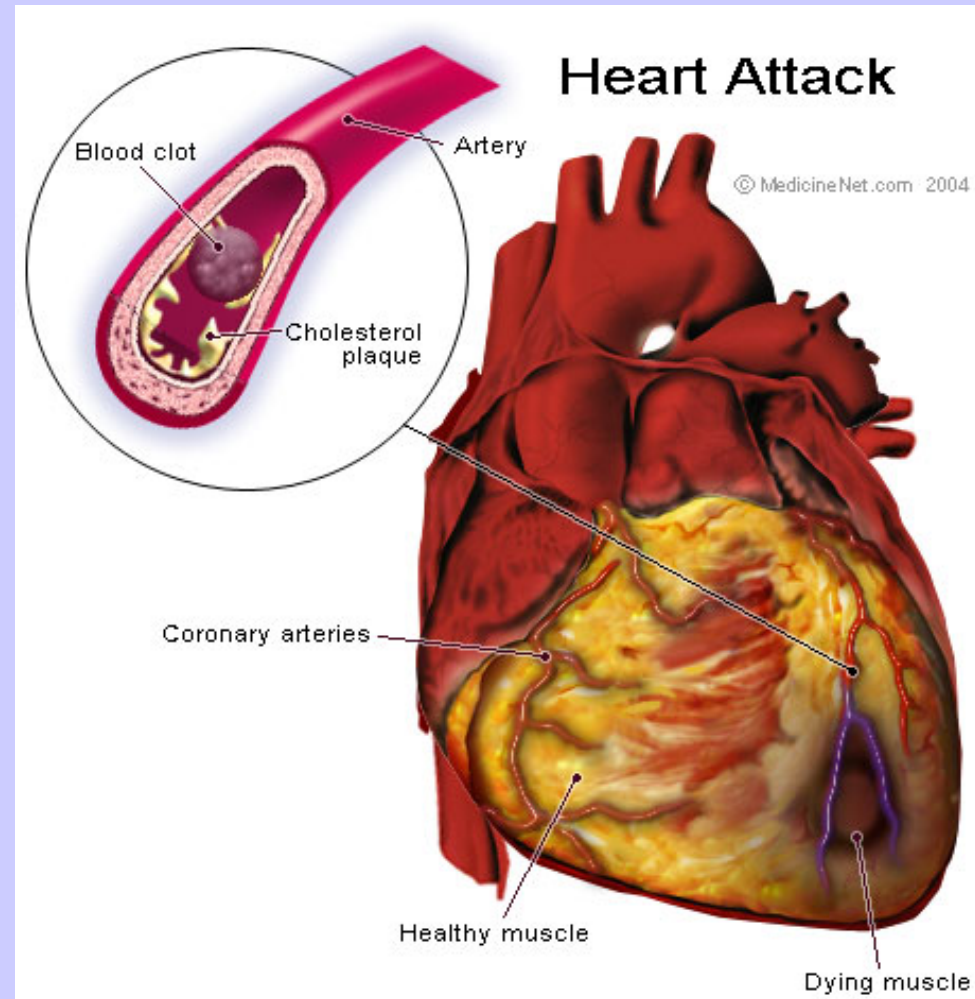
- when BGL higher than normal but not high enough to be diagnosed with diabetes
- Usual BGL is between 4.0 - 8.0 mmol/L

# What Do The Numbers Mean?

- Normal fasting under 6.1
- Impaired glucose
  - fasting 6.1 - 6.9
  - following 75g glucose 7.8 - 11.0
- Diabetes
  - fasting over 6.9
  - following 75g glucose over 11.1

# Why Bother?

- You have a higher risk of developing heart disease
- Those at highest risk have both IFG and IGT



# What can you do?

- Quit smoking
- Lose weight
- Maintain healthy cholesterol/BP
- Reduce stress
- Limit alcohol intake
- Healthy eating
- Exercise



Research shows that being physically active and following a healthy eating plan can reduce a person's risk of developing Type 2 diabetes by as much as 60%

*Pfizer Health Report November 2005*

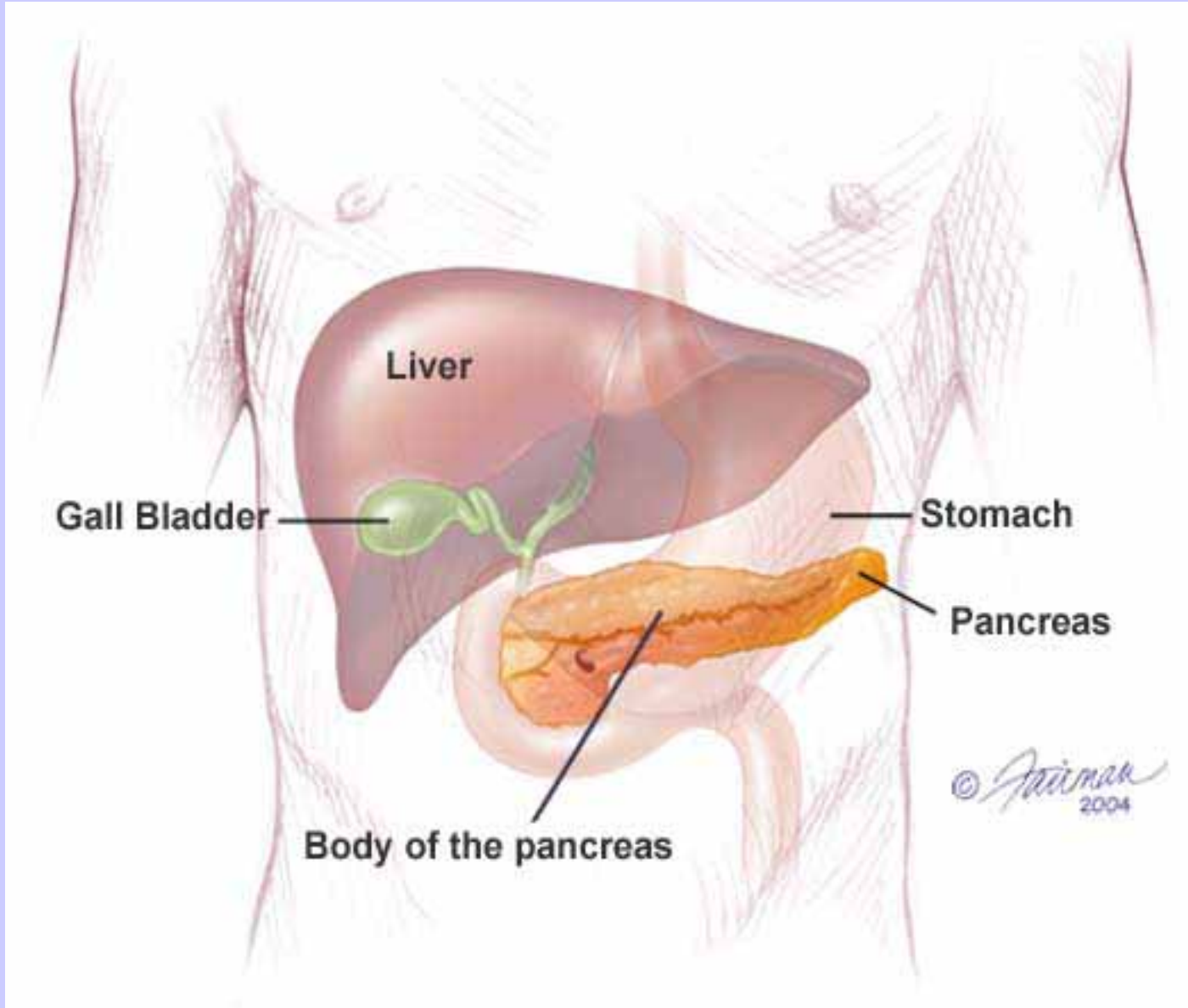


# Types of Diabetes

- Type 1 → 15% of all people with diabetes
- Type 2 → 85% of all people with diabetes
- Gestational → 5 – 8% of all pregnancies

# What Happens in Type 1 Diabetes?

- Cause is unknown but ? genetic
- Stress or illness may trigger an auto immune response in the pancreas
- Islet cells are destroyed and no longer produce insulin
- Insulin is needed to move glucose into the cells

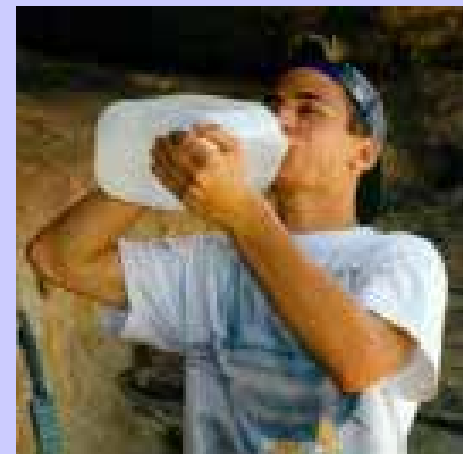


# Type 1 Diabetes

- Age Young
- Onset Rapid
- Urine ketones Strong
- Family history Usually
- Symptoms Severe
- Insulin injections Always

# Acute Symptoms in Type 1 Diabetes

- Thirst
- Frequency of urination
- Blurred vision
- Tired and lethargic
- Ketones in urine
- Irritability
- Hunger
- Weight loss



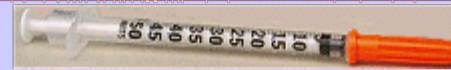
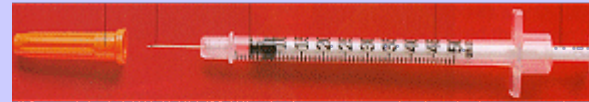
# Treatment of Type 1 Diabetes

- Insulin injections
- Balance of carbohydrates with insulin dosage/exercise
- Blood glucose monitoring



# Insulin Devices

- Syringes
- Pens
- Pumps



# Insulin Pumps



# Type 2 Diabetes

- Age Middle Age
- Onset Slow
- Urine ketones Nil
- Family history Strong
- Symptoms Gradual
- Insulin injections Occurs later

# Risk Factors

- Over 45 years and have high blood pressure
- Over 45 years and overweight
- Over 45 years and have a family history of Type 2 diabetes



# Risk Factors

- Have had a heart attack or have heart disease
- Over 55 years
- Have had Gestational diabetes
- Have polycystic ovary syndrome and overweight



# Risk Factors

- Over 35 years and Aboriginal or Torres Strait Islander
- Over 35 years and Pacific Islander, Chinese or from the Indian sub continent

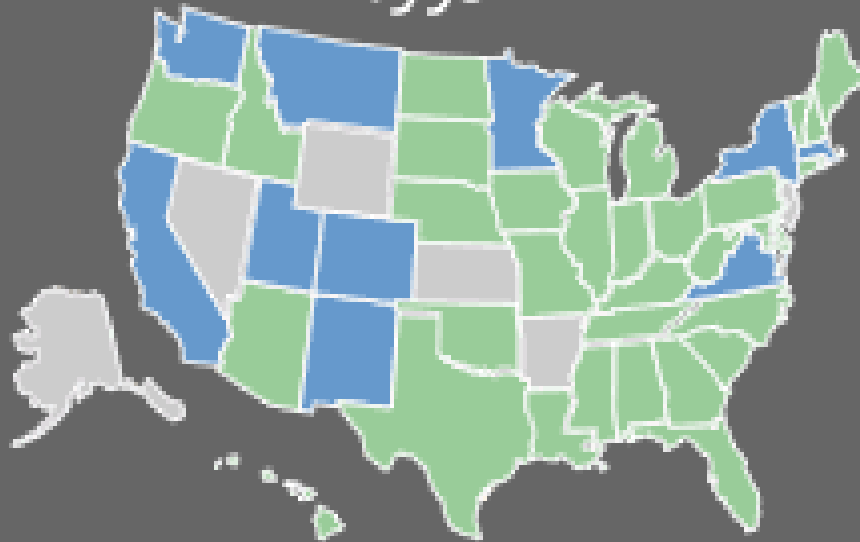
# Type 2 Diabetes in Children/Adolescence

- Incidence of Type 2 diabetes in children is increasing in line with incidence of obesity
- Peak age for diagnosis is 13 – 14 years
- Numbers have increased 16 fold in last 10 years

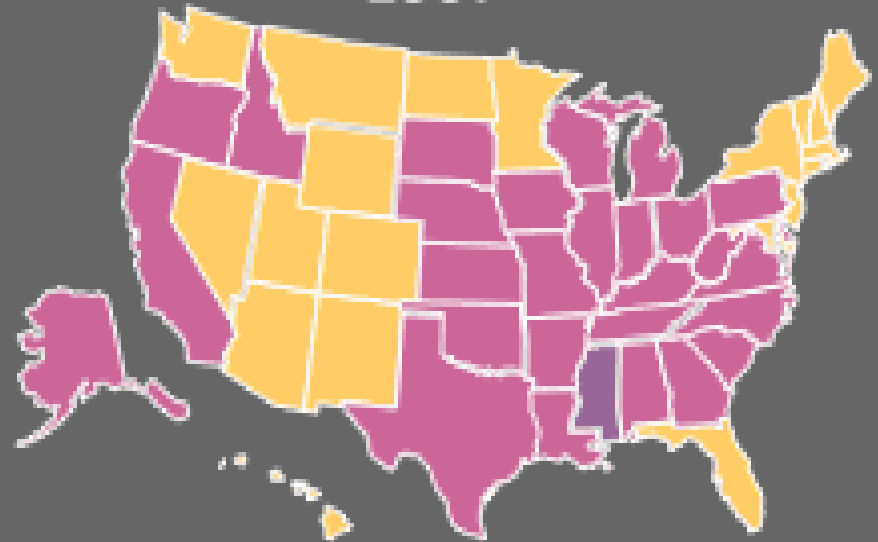


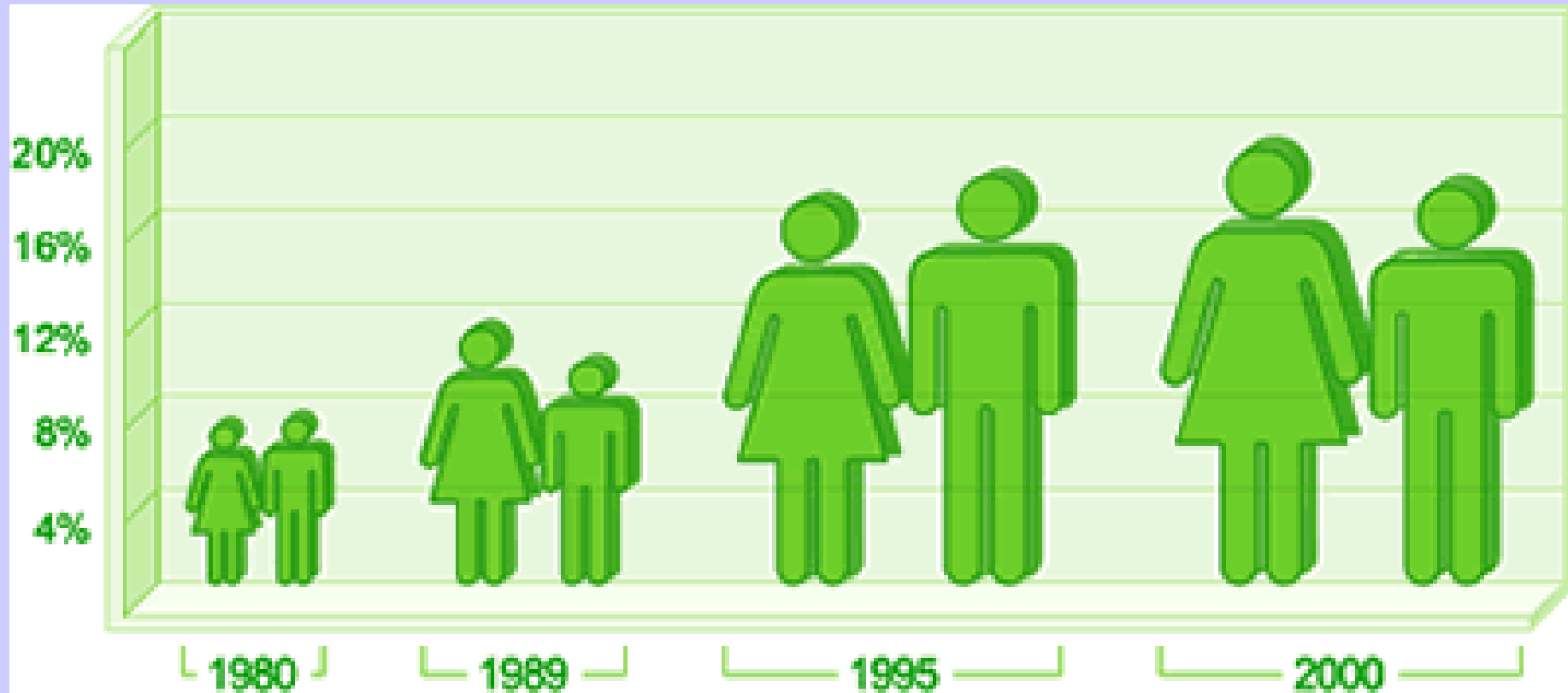
## Prevalence of Obesity

1990



2001

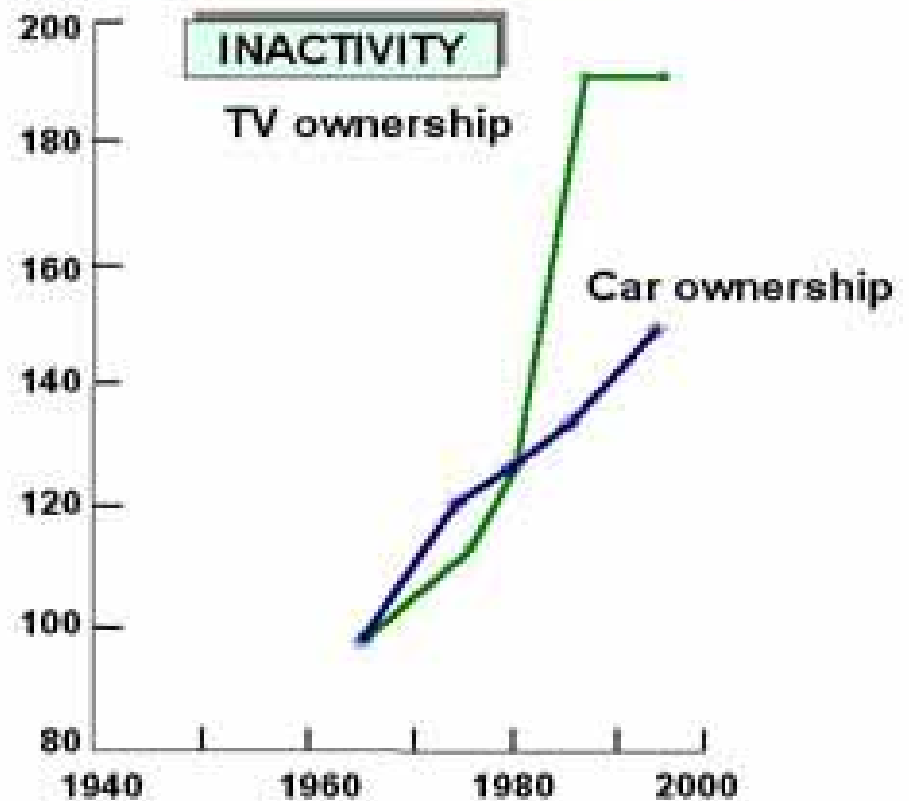
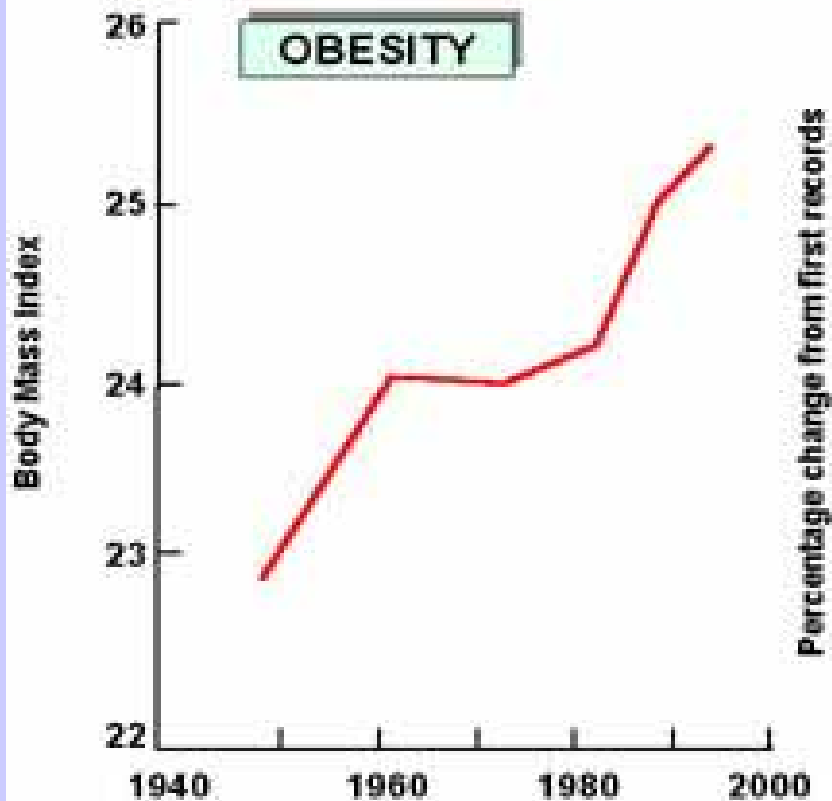




**Prevalence of obesity in adults aged 25-64\***

Source: AusDiab Study report, 2001.

## Obesity and inactivity in the UK



# Waist Circumference

	Healthy	Overweight	Obese
Men	<b>Less than 94cm</b>	<b>94 – 102cm</b>	<b>Greater than 102cm</b>
Women	<b>Less than 80 cm</b>	<b>80 – 88cm</b>	<b>Greater than 88cm</b>



# What Happens in Type 2 Diabetes?

- Pancreas slows down its production of insulin or the insulin doesn't work properly - this is called insulin resistance
- 85% of people with Type 2 diabetes are overweight on diagnosis

# Symptoms in Type 2 Diabetes

- Thirst
- Frequency of urination
- Thrush
- Blurred vision
- Tired and lethargic
- Infections that don't heal/itchy skin
- Irritability



# Treatment of Type 2 Diabetes

- Healthy eating and exercise
- Weight loss/control
- Oral medication, healthy eating and exercise
- Insulin, healthy eating and exercise
- Blood glucose monitoring

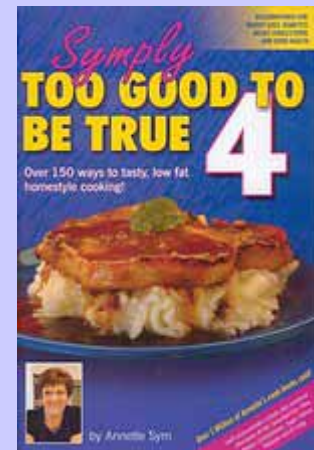


CureSheet

Diabetes

# Dietary Guidelines for Diabetes

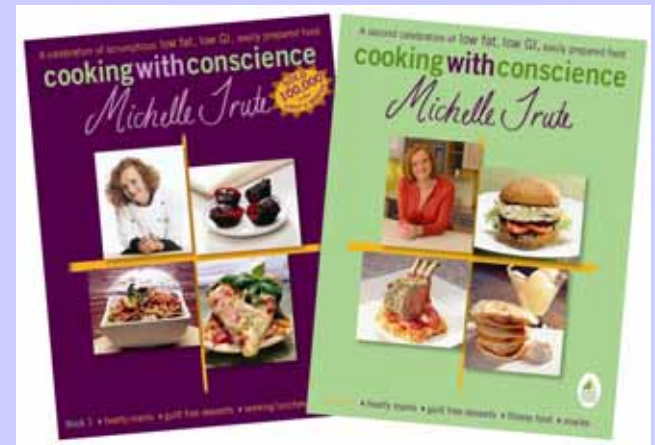
- High fibre
- Low fat
- Low sugar
- Low salt
- Moderate serving sizes





# What to look for

- Fat - less than 10g/100g
- Fibre - at least 30g/day
- Sugar - less than 10g/100g
- Salt - less than 400mg/100g



# Overview of Glycaemic Index

The GI is a ranking of carbohydrate containing foods according to how they affect blood glucose levels.

- Low GI = less than 55
- Moderate GI = 56 - 70
- High GI = over 70



# Carbohydrates - Low GI

- Pasta
- Rice eg basmati
- Bread eg multigrain
- Cereals eg muesli,  
porridge



# Carbohydrates - Low GI

- Fruit eg pears, oranges, apples
- Vegetables, eg corn, sweet potato
- Low Fat Milk/Yoghurt/Cheese



# Carbohydrates - High GI

- Soft Drink eg Coke
- Cordial eg Sweet
- Jam
- Lollies
- Cakes
- Sweet biscuits



# Protein

- Meat
- Chicken
- Fish/Shell Fish
- Eggs
- Cheese
- Nuts



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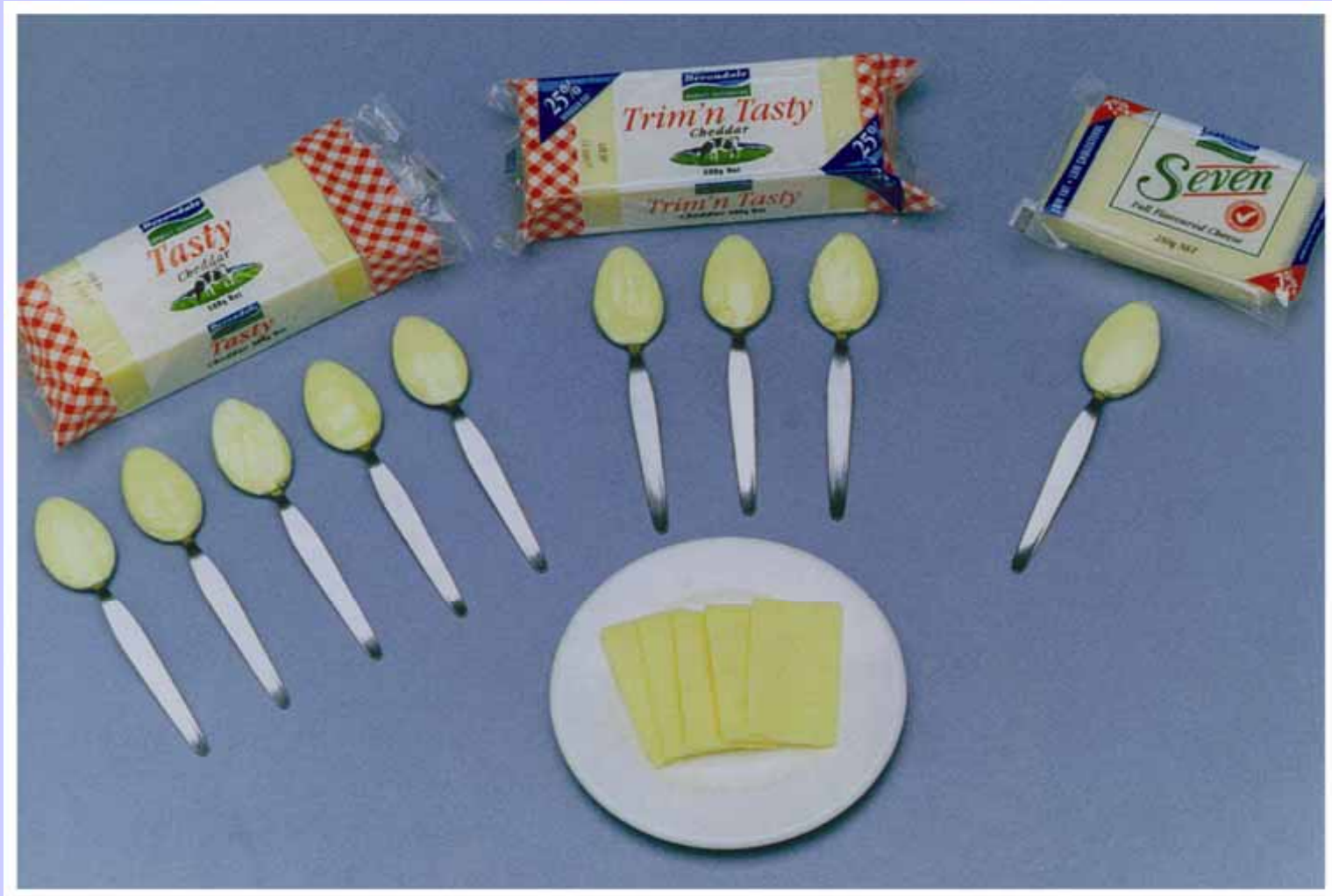
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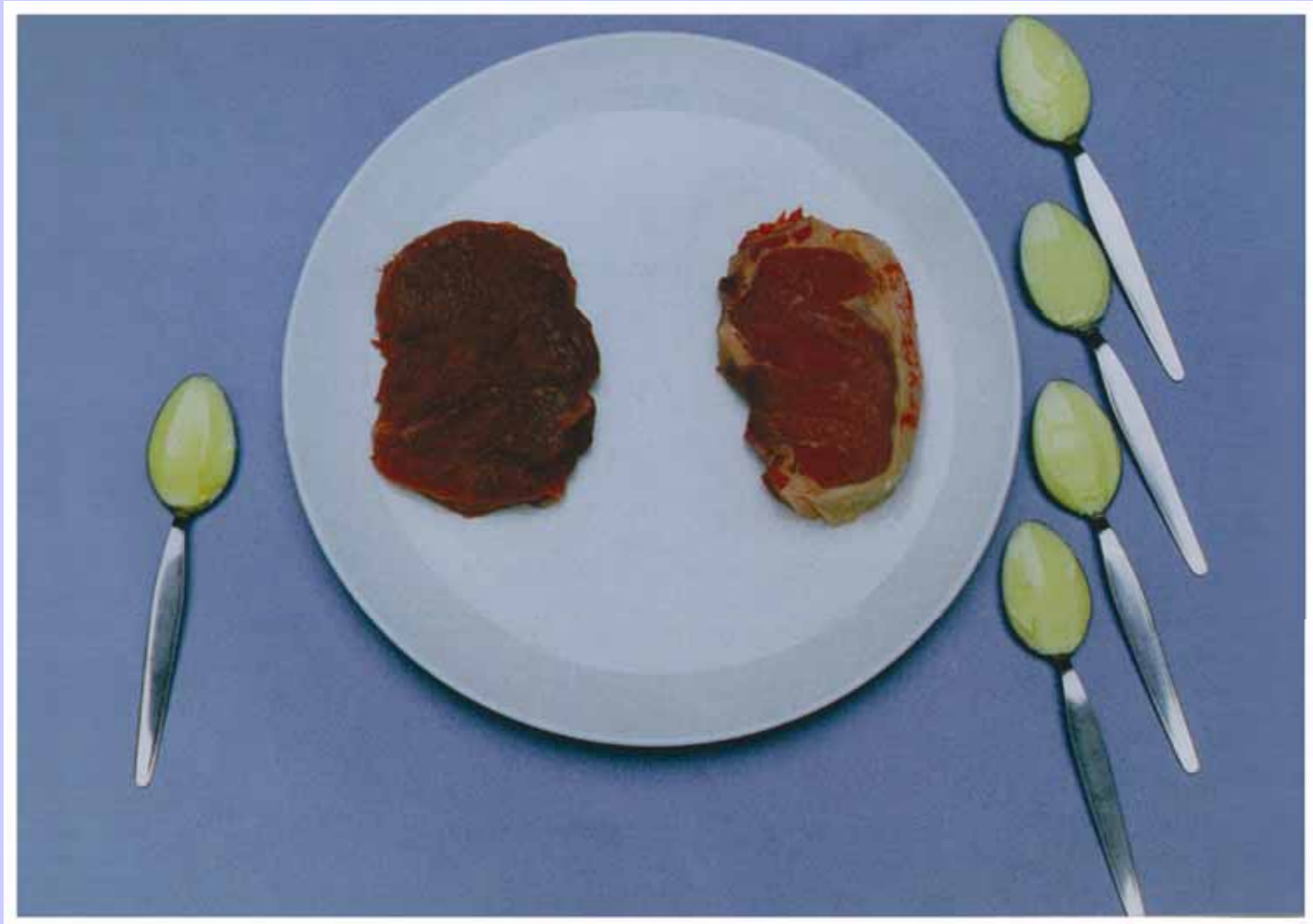


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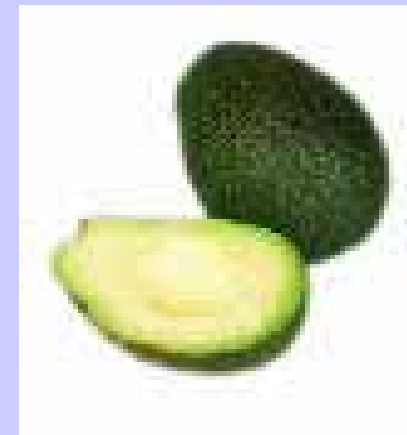
# Types of Fats

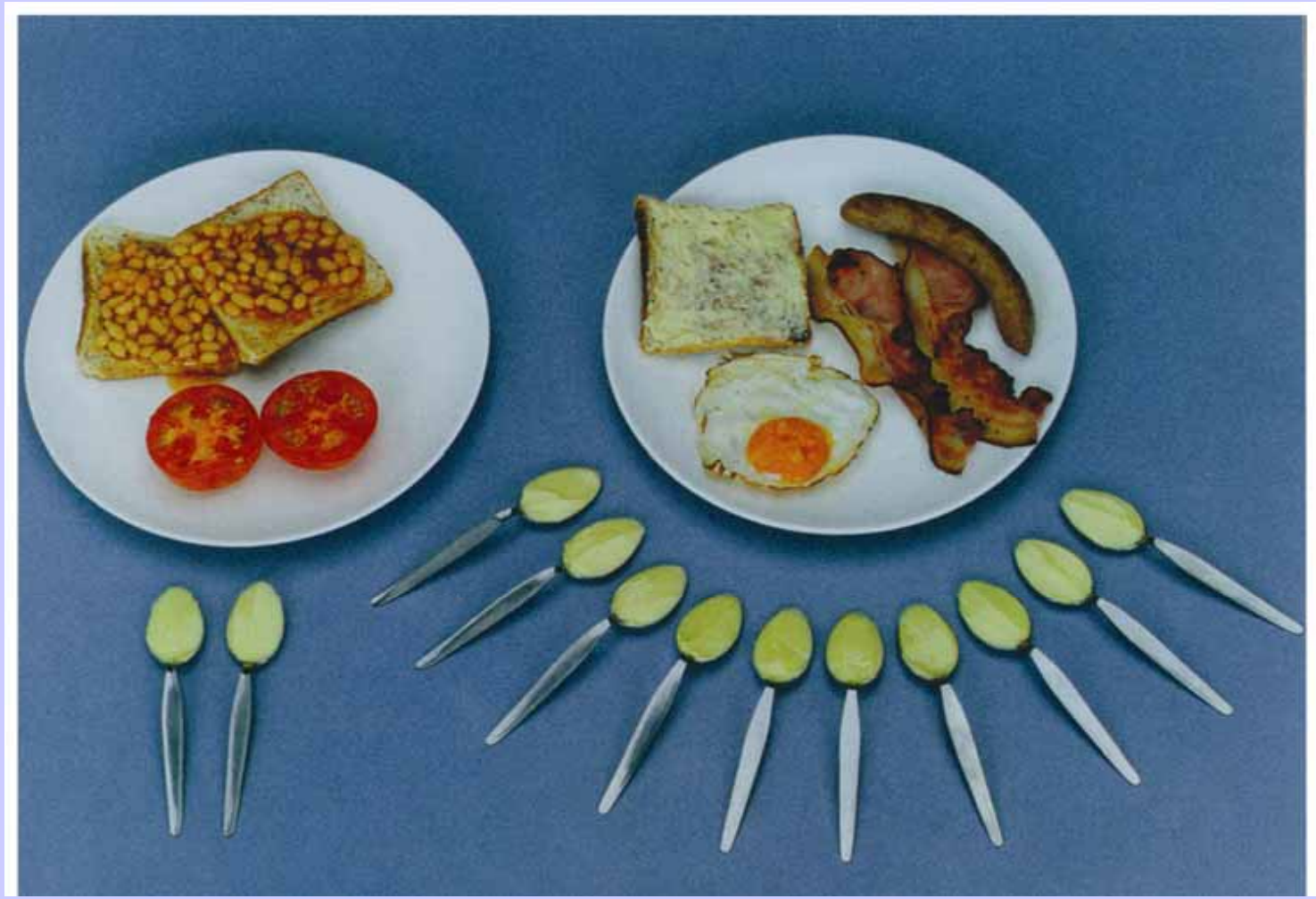
- Saturated fat eg butter, full cream dairy products, palm and coconut milk, fatty meats
- Polyunsaturated fat eg sunflower oil, Meadowlea and Flora margarine, Proactive/ Logicol, tinned fish in oil (sardines), atlantic salmon, trout



# Types of Fats

- Mono-unsaturated fat eg nuts (almonds, cashews), avocado, olive and canola oil

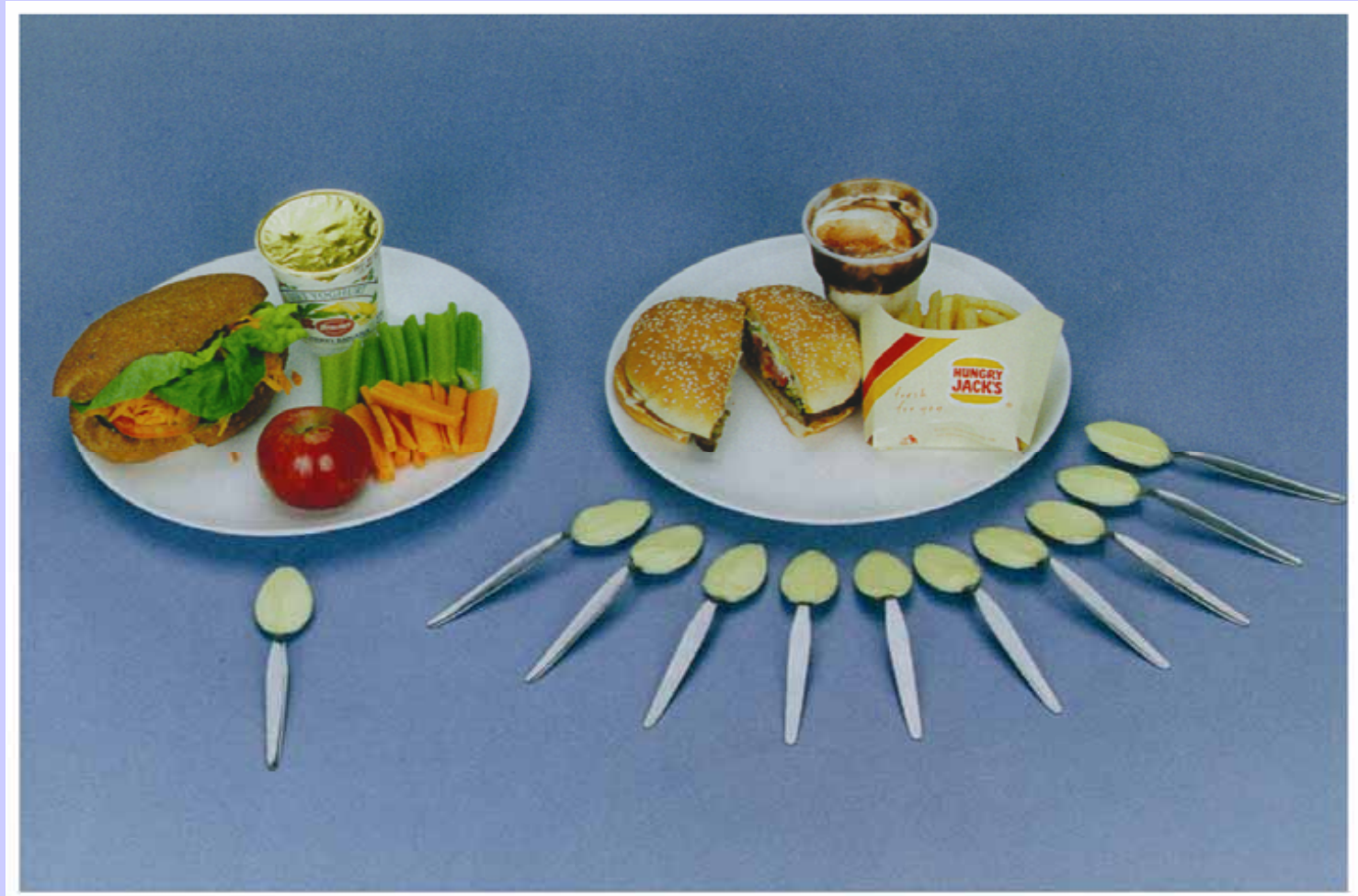




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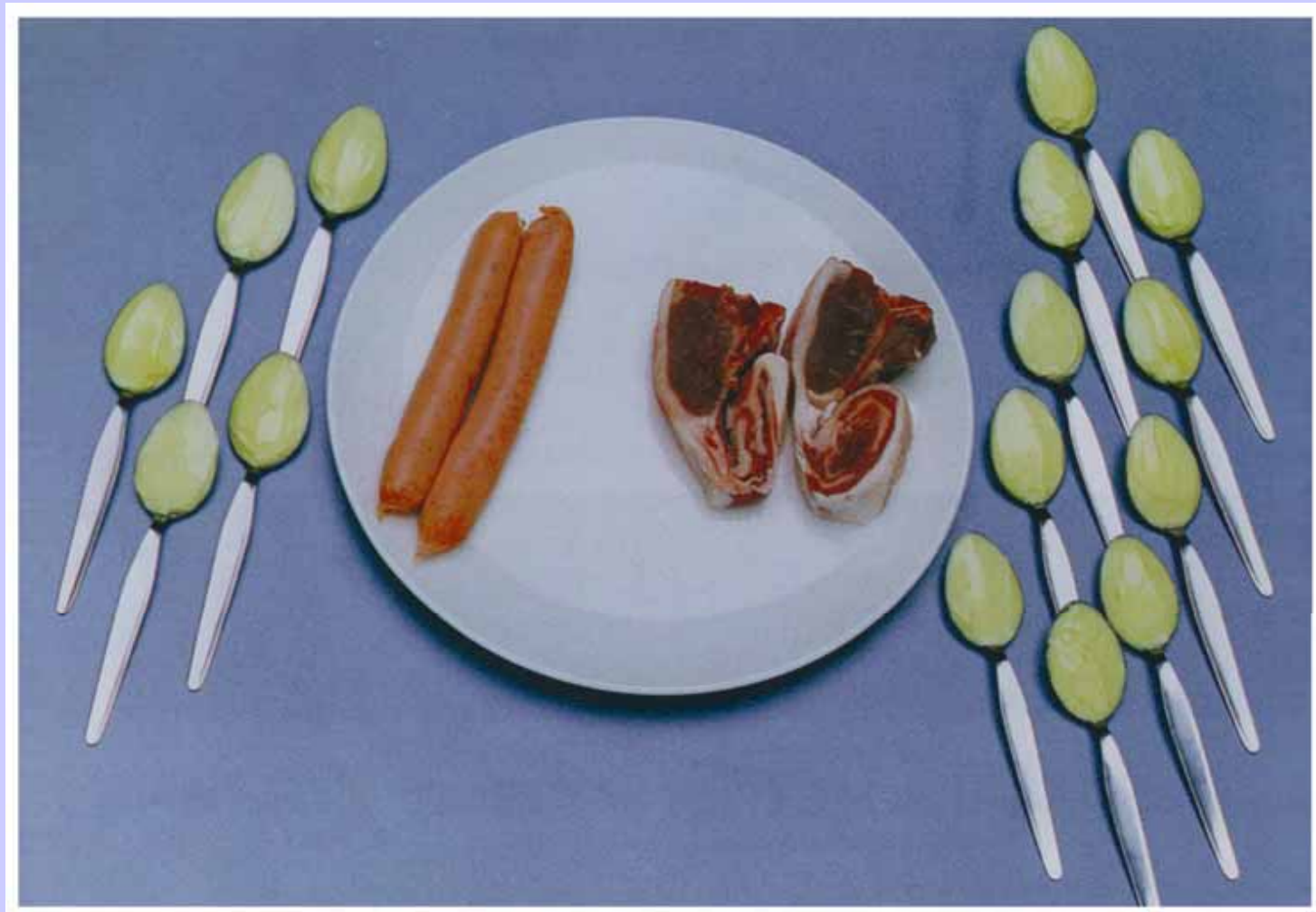
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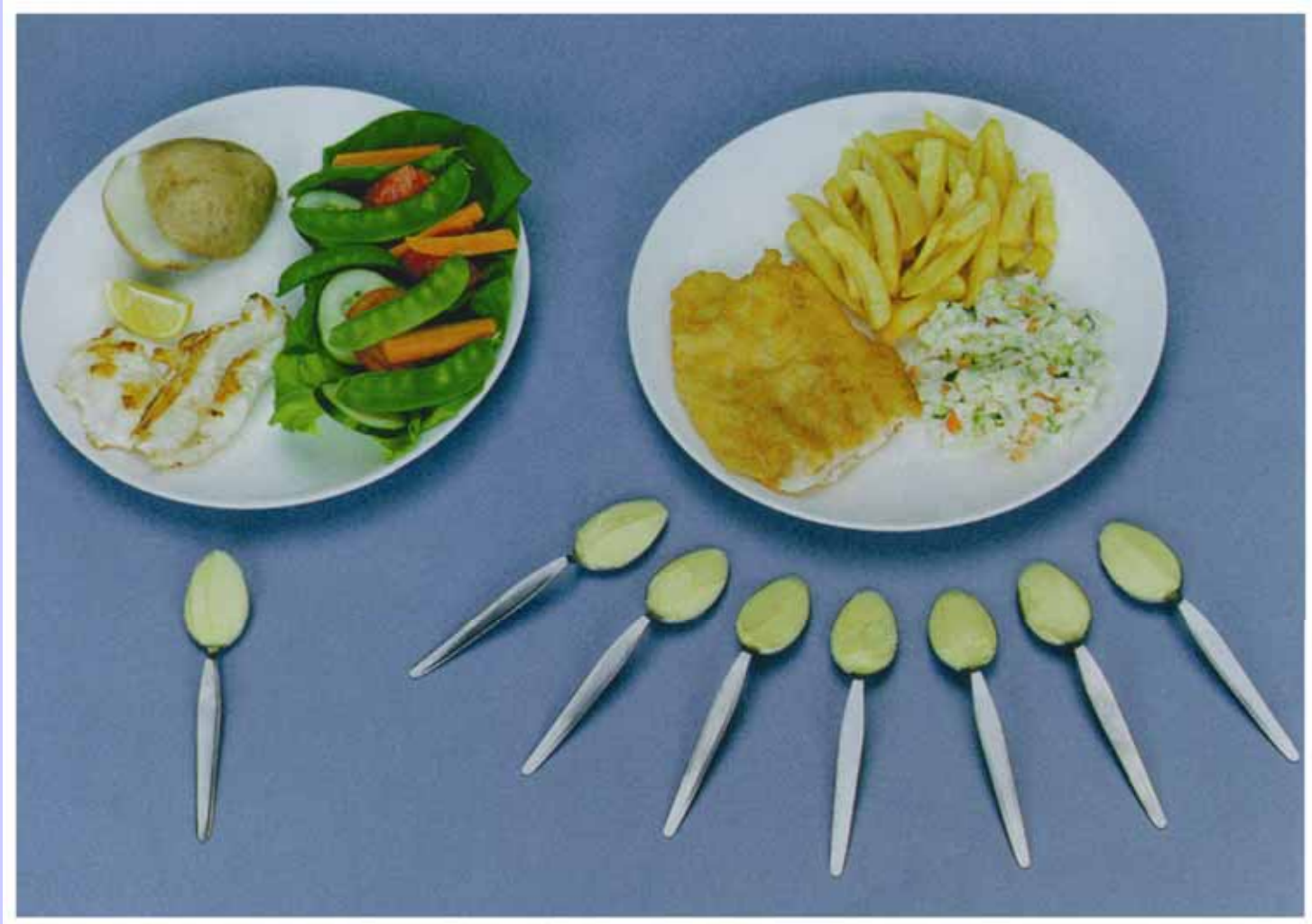


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# MUFFIN – Portion Distortion

20 Years Ago



210 calories

Today



500 calories

Calorie Difference: 290 calories

# Maintaining a Healthy Weight is a Balancing Act

## Calories In = Calories Out



How long will you have to vacuum in order to burn those extra 290 calories?\*

# Calories In = Calories Out



If you vacuum for 1 hour and 30 minutes you will burn approximately 290 calories.\*

# Physical Activity

Goal is to be active every day and try to put together at least 30 minutes of moderate activity most days of the week. This could be:

- brisk walking
- mowing the lawn
- digging in the garden
- swimming



# Benefits of Physical Activity

- Sense of well-being
- Lowers blood pressure
- Helps stress management
- Lowers cardiovascular risk
- Assists with weight control
- Improves blood glucose levels



# Benefits of Physical Activity



- Assist sleep patterns
- Improves flexibility
- Lowers cholesterol
- Protects against arthritis
- Prevents osteoporosis by  
↑ bone density
- Improves muscle strength  
and tone

# Diabetes South Australia

Stepping out with you  
providing

- education
- information
- support
- products

