

Lifestyle and Preventative Medicine

Dr Brunilda Pura, GpST3, Diploma in LPM

What is Lifestyle medicine

Evidence based practice of helping individuals and family adapt and sustain healthy behaviour that affect health and quality of life.

WHAT IS LM

Expectation?

Ideas?

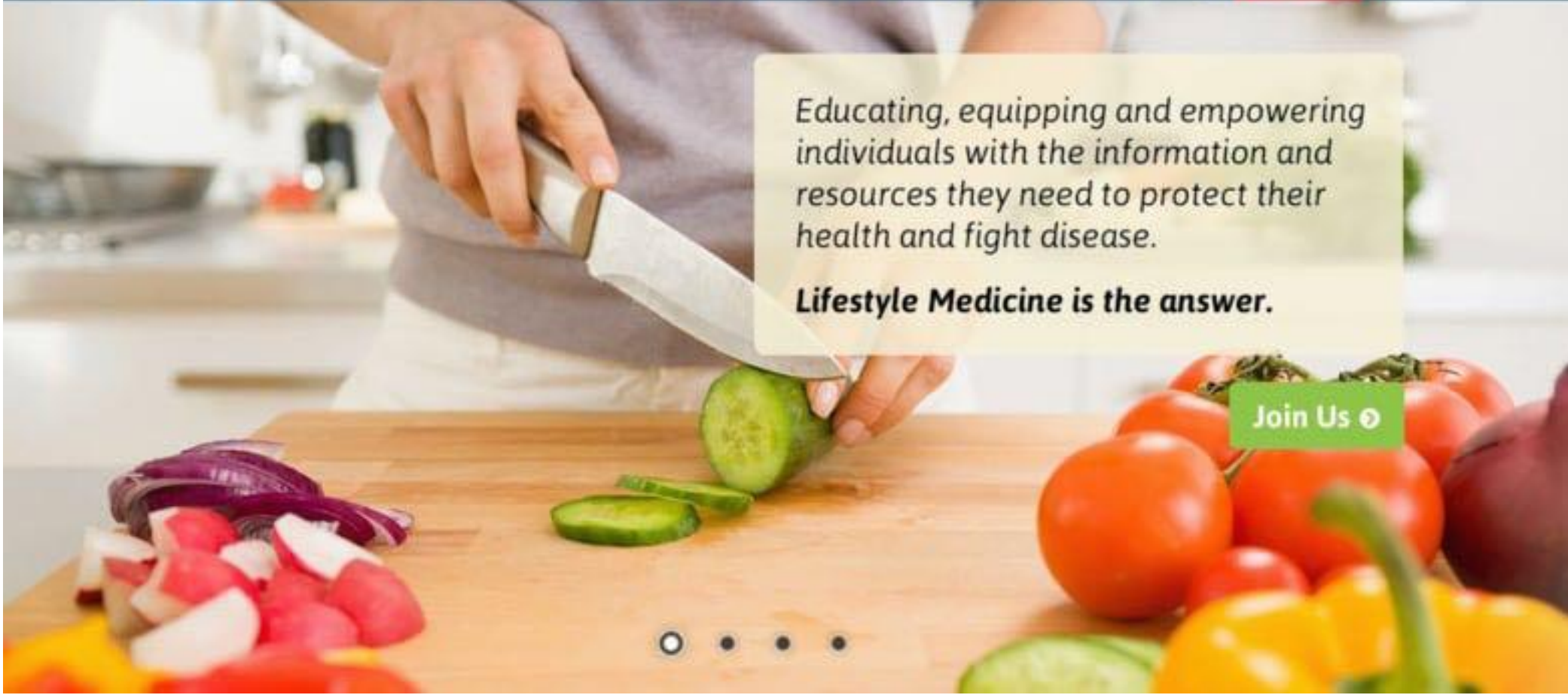
Why now?

What different can we make?

What skills we need to help?

Who is this program for?

5min RR.



Educating, equipping and empowering individuals with the information and resources they need to protect their health and fight disease.

Lifestyle Medicine is the answer.

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ADVANCE
PREVENTION**

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Lifestyle Medicine

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Blue Ribbon Panel on Physician Lifestyle Medicine Competencies

- Consensus panel of representatives from:
 - American Academy of Family Physicians,
 - American Medical Association,
 - American College of Physicians,
 - American College of Preventive Medicine,
 - American College of Lifestyle Medicine,
 - American Osteopathic Association,
 - American Academy of Pediatrics,
 - American College of Sports Medicine
- Agreed on a definition for LM and 15 core competencies for primary care physicians.



Paris, June 5th – 8th 2014

Participating Organizations:

American Academy of Family Physicians	American Medical Association
American Academy of Pediatrics	American Osteopathic Association
American College of Physicians	Rippe Lifestyle Institute
American College of Lifestyle Medicine	Loma Linda University
American College of Sports Medicine	



Practice project: Bute House Medical practice Lifestyle Medicine Project

Eat Well- Move More-Relax
Daily to live healthily



What is the best Diet

Why do you want to live a healthier life?

A big WHY it makes the journey easier.

How ready are you ? 1-10 .

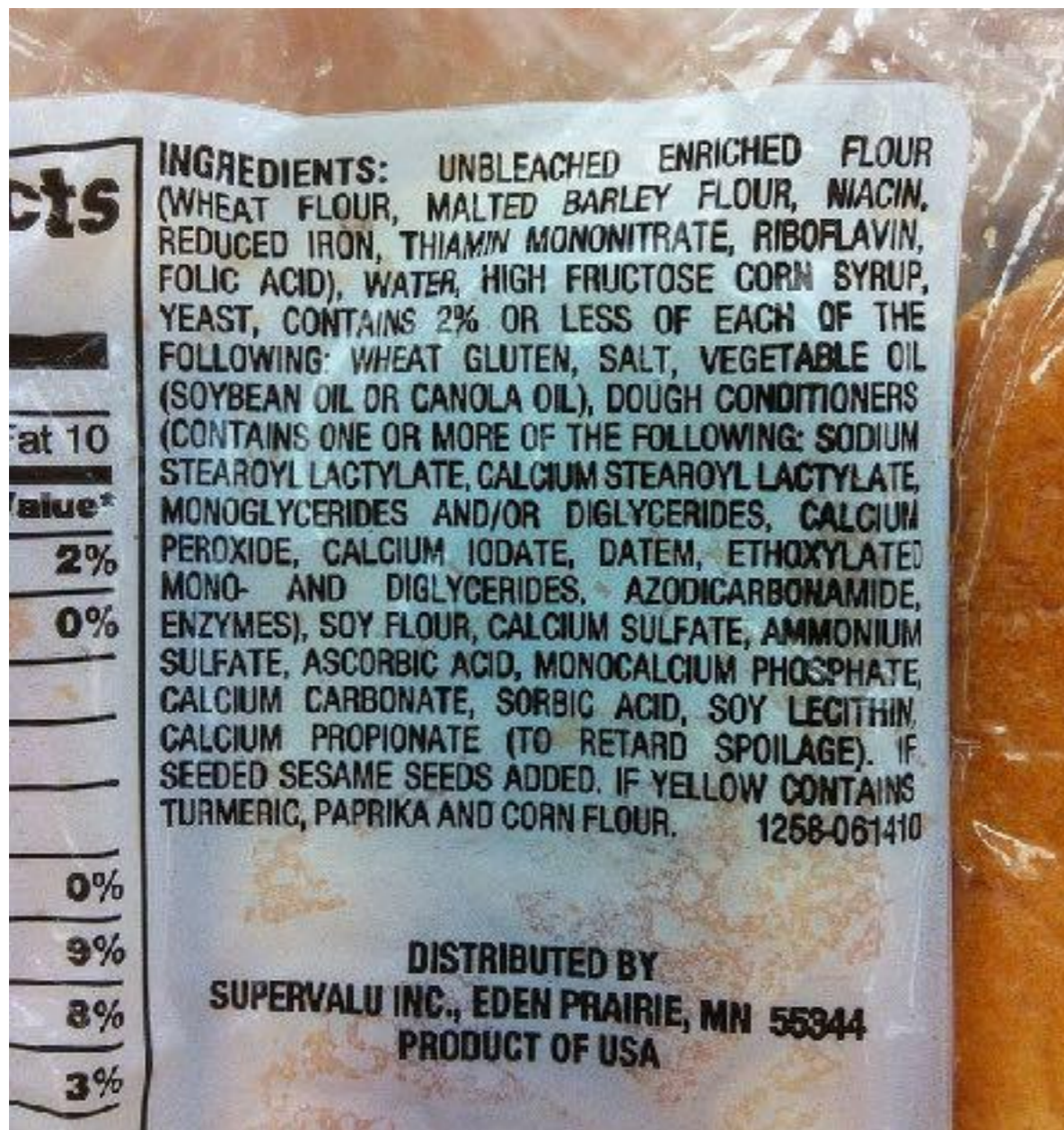
How confident are you that you can change your habits? 1-10.



Free Session on healthy living given by our
Doctors. Ask questions that you had no time to
ask before.

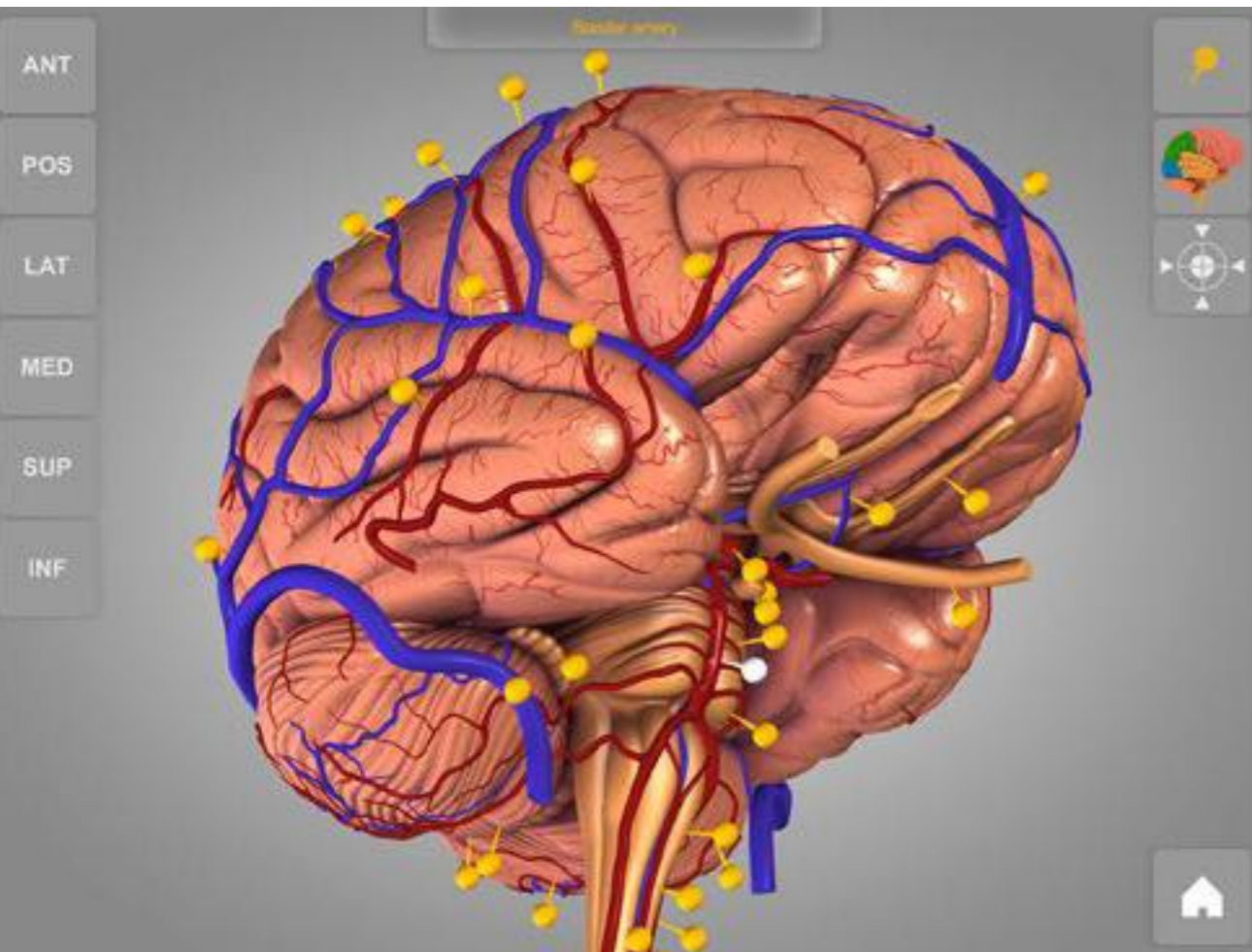
**Bute House 19th July at 5:30pm. Only few
places left. First come first served basis.**





I Finally Realized It
 People Are **Prisoners** Of Their Phones
 That's Why They Are Called
Cell Phones!!



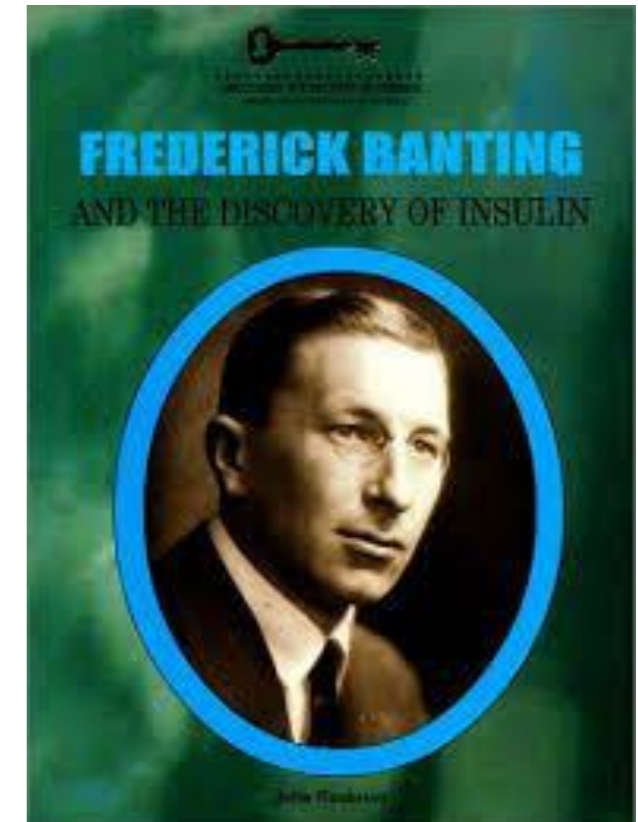


Neuroplasticity- Habits change behaviour



Edward Jenner

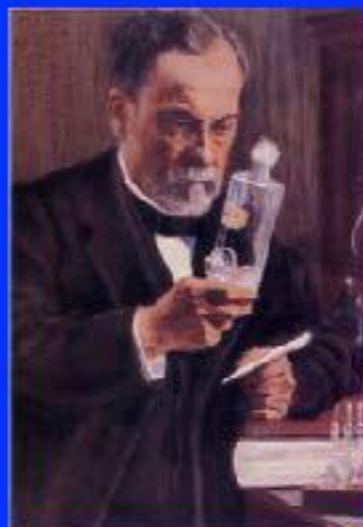
- ❖ First to publish and test immunity by challenge with smallpox.
- ❖ 1796, inoculated a person, 5 years later vaccination became popular.
- ❖ Invented smallpox vaccine



Louis Pasteur (1822 – 1895)

Pasteur's contributions:

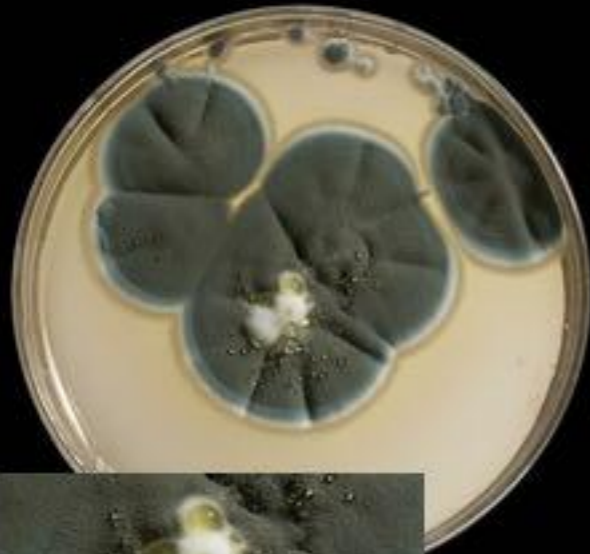
- Pasteur (1857) demonstrated that lactic acid fermentation is due to the activity of micro-organisms
- Pasteur (1861) conflict over spontaneous generation – birth of microbiology as a science
- Pasteur (1881) developed anthrax vaccine



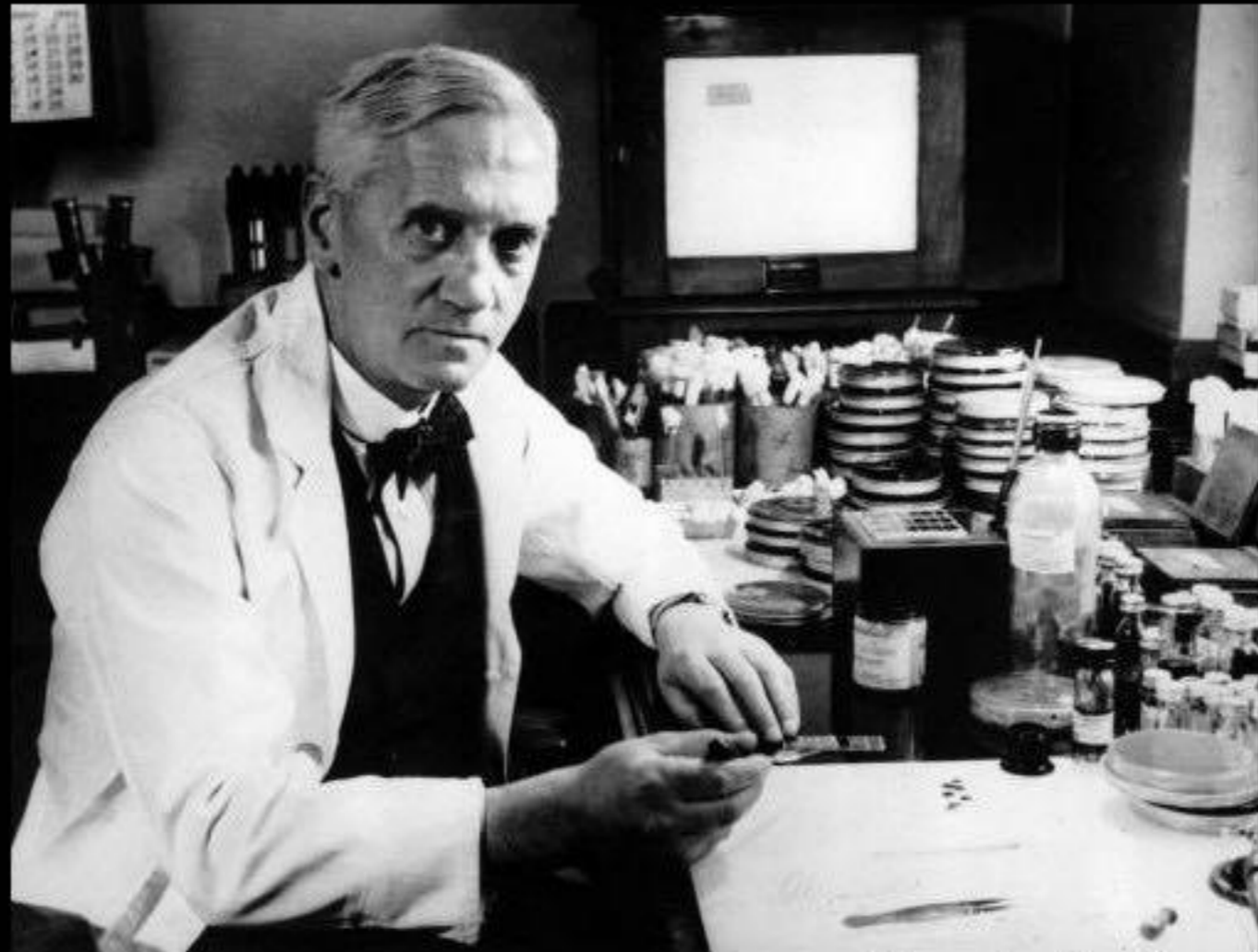
Louis Pasteur working in his laboratory



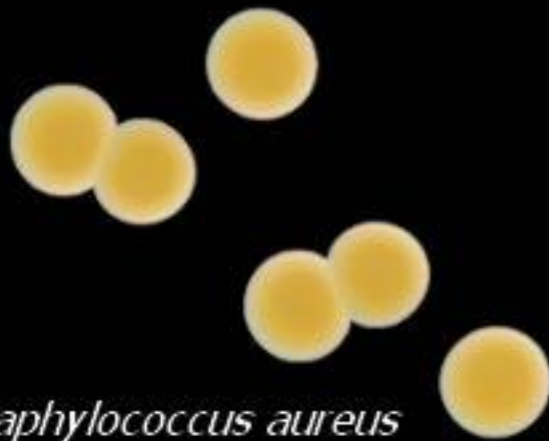
www.bacteriainphotos.com



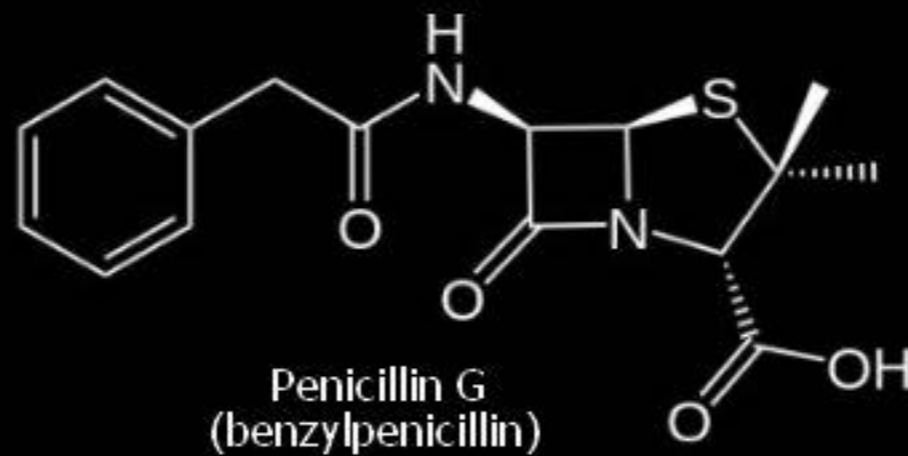
Penicillium chrysogenum
(*P. notatum*)



Alexander Fleming

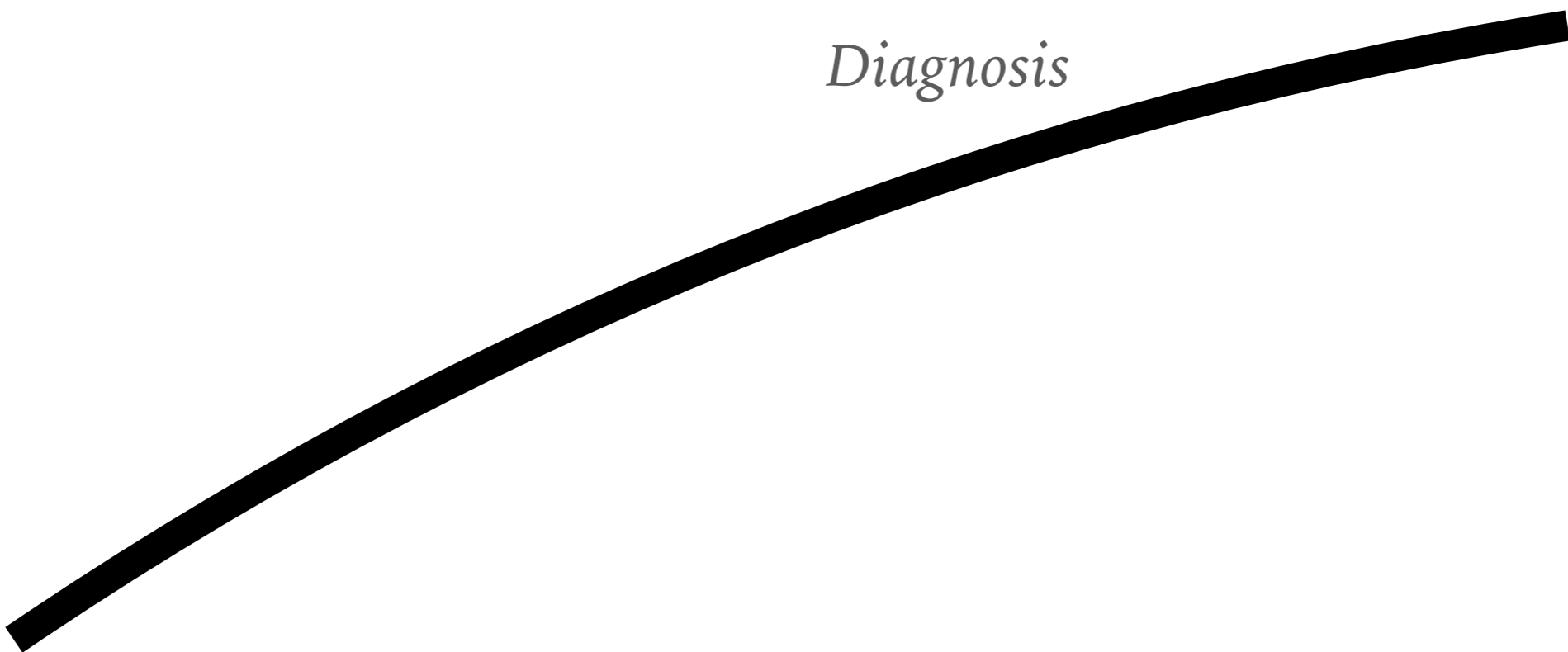


Staphylococcus aureus



Penicillin G
(benzylpenicillin)

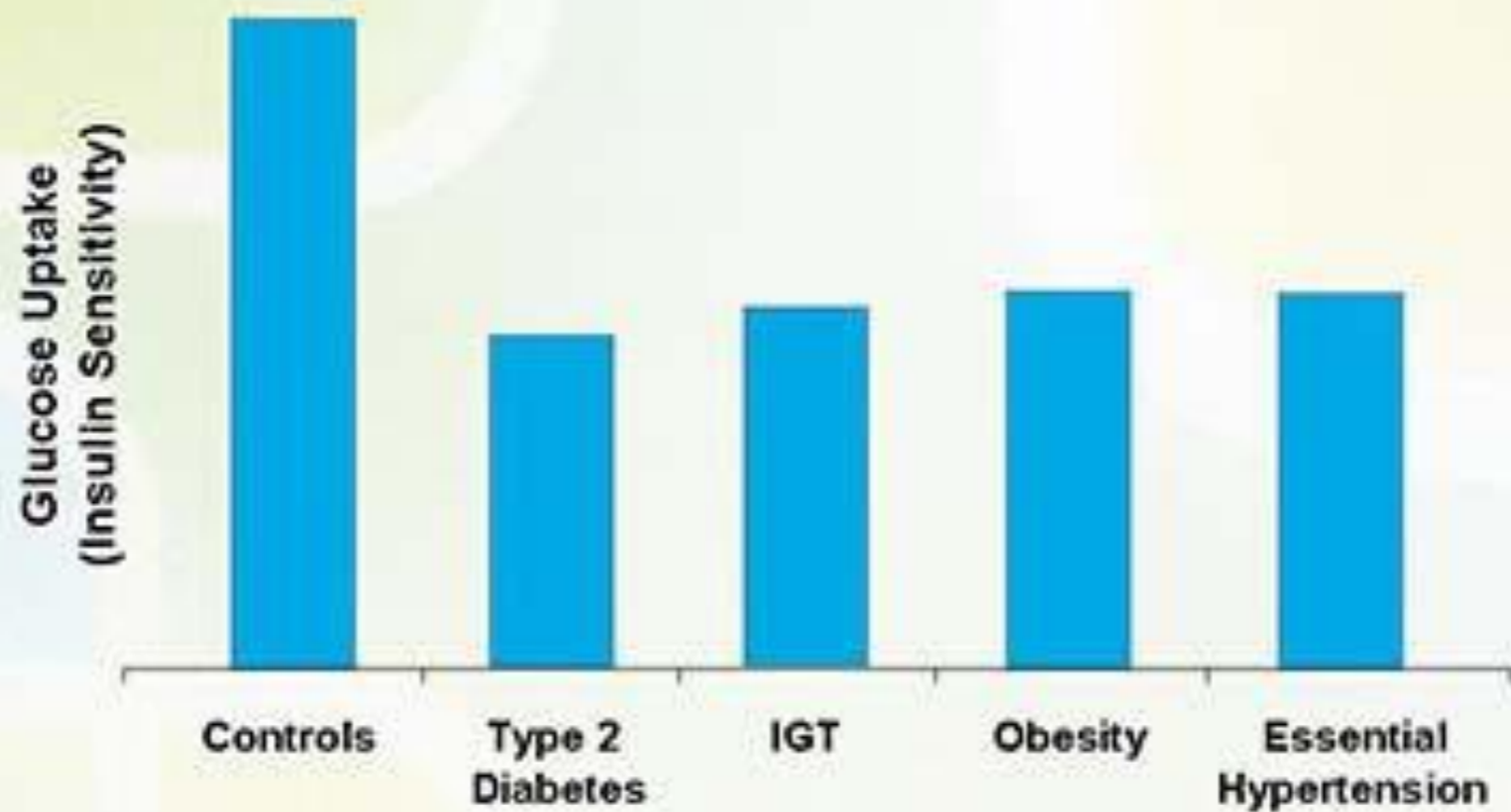
Optimal health



Diagnosis

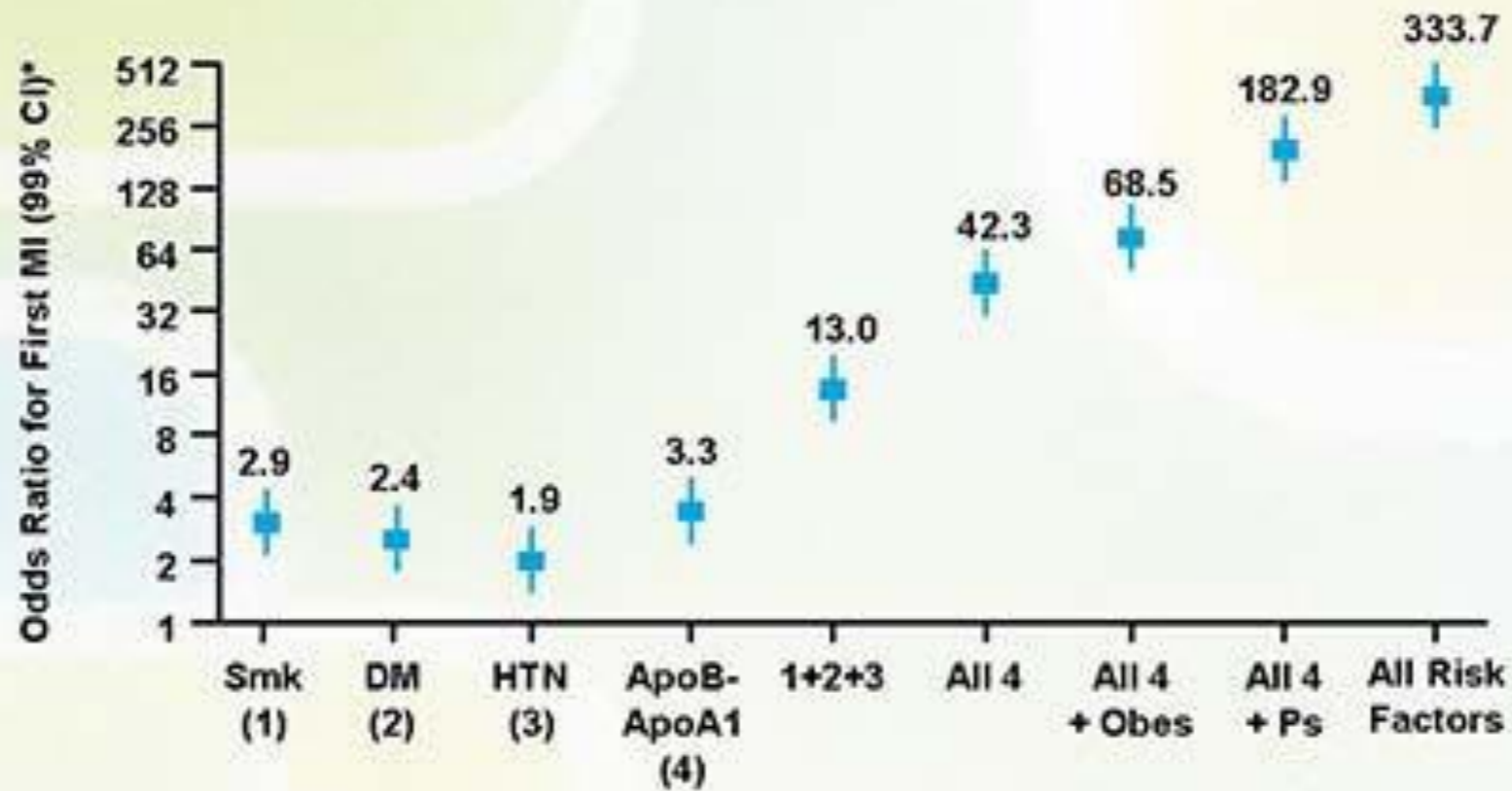
Chronic disease

Insulin Sensitivity in Various Clinical States



DeFronzo RA et al. *Diabetes Care*. 1992;15:318-368;
DeFronzo RA et al. *Diabetes Care*. 1991;14:173-194;
Carantoni M et al. *Diabetes*. 1998;47:244-247;
Ferrannini E. *Metabolism*. 1995;44:15-17.

INTERHEART: Impact of Multiple Risk Factors on CV Risk

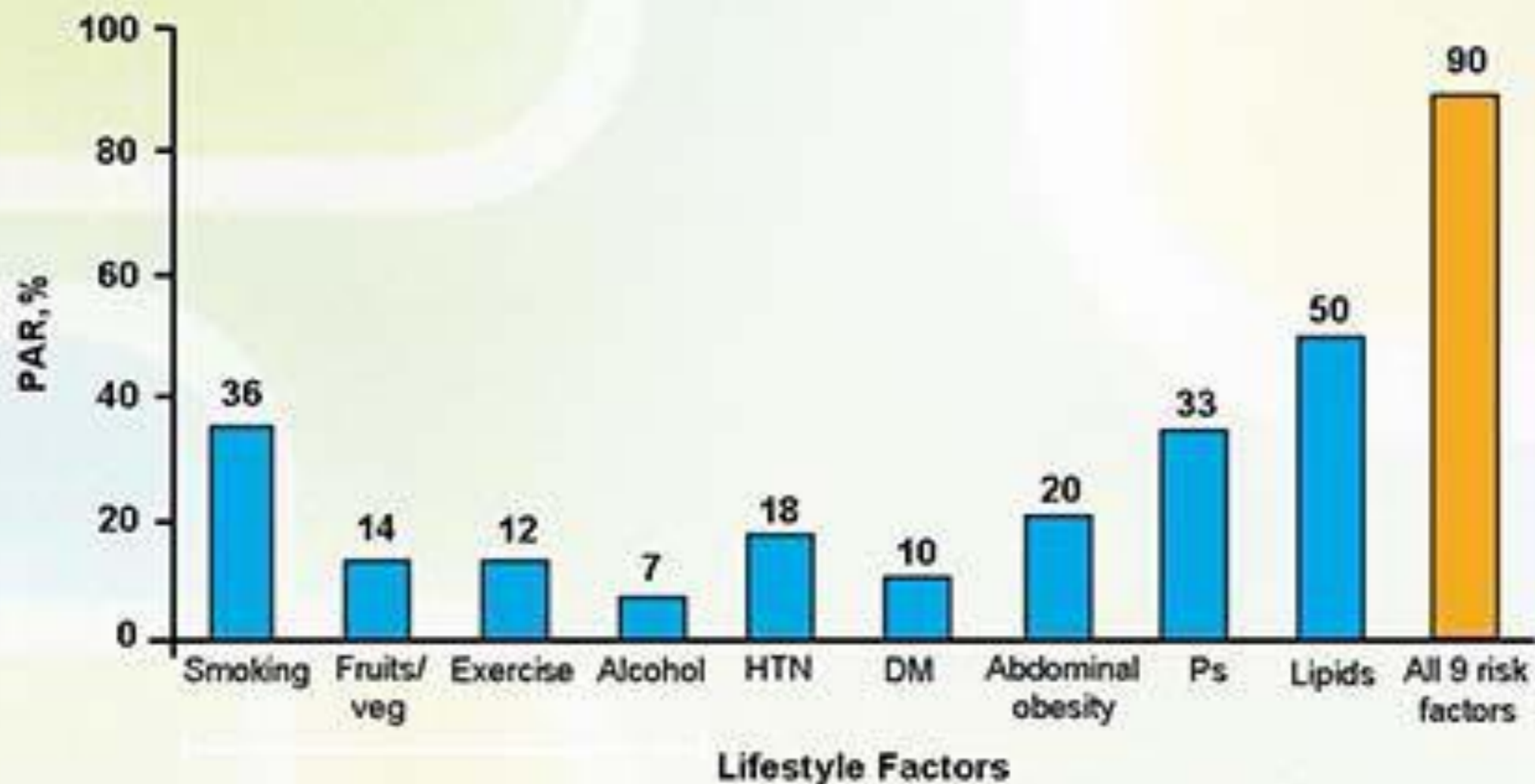


*Odds ratio plotted on a doubling scale.
CI = confidence interval; Smk = smoking; HTN = hypertension;
Apo = apolipoprotein; Obes = obesity; Ps = psychosocial factors.

Yusuf S et al. *Lancet*. 2004;364:937-952.

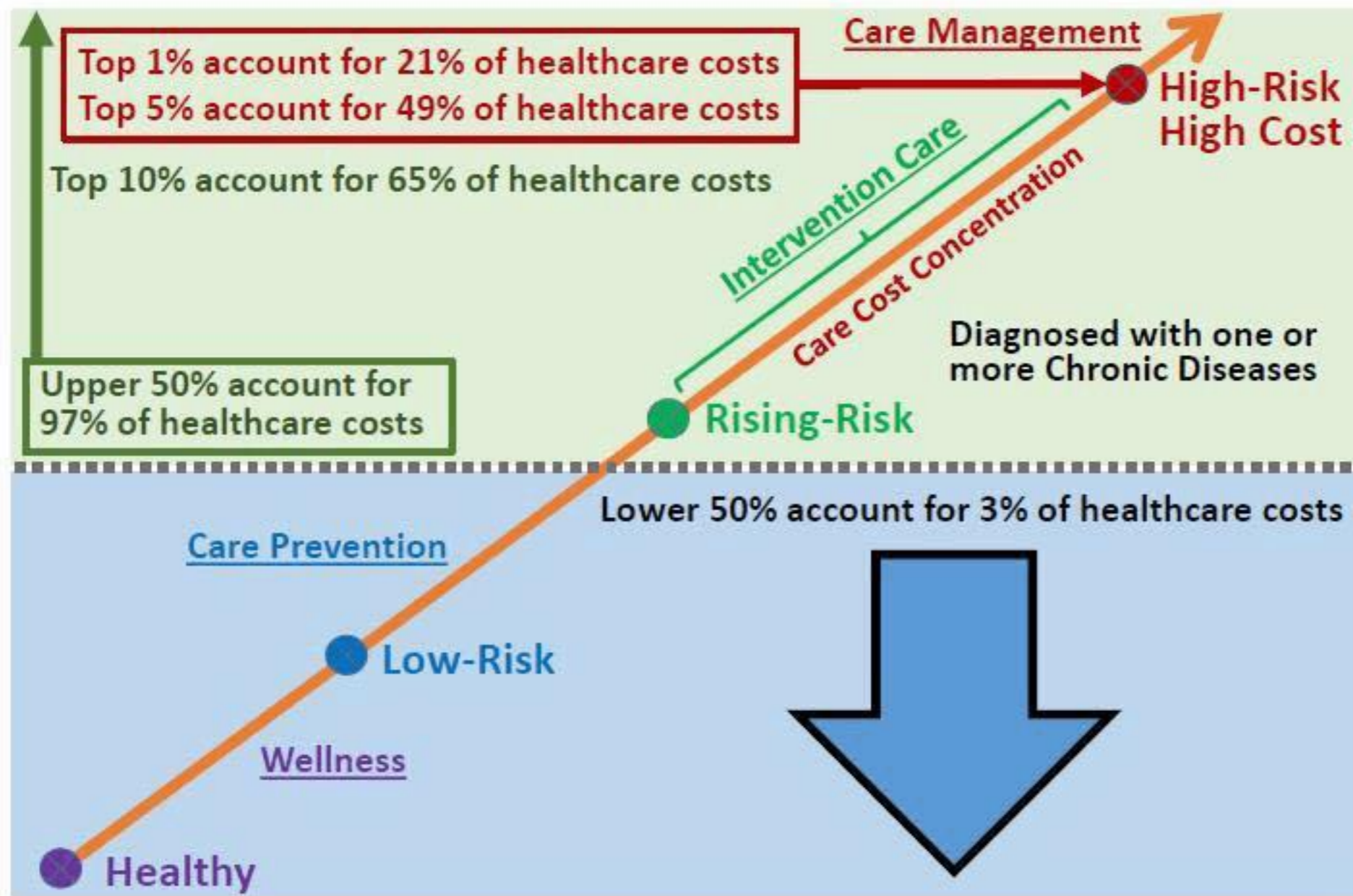
<https://www.medscape.org/viewarticle/572762>

INTERHEART: 9 Modifiable Factors Account for 90% of First-MI Risk Worldwide



N=15,152 patients and 14,820 controls in 52 countries
PAR = population attributable risk, adjusted for all risk factors.

Yusuf S et al. *Lancet*. 2004;364:937-52.



<https://www.cdc.gov/chronicdisease/>

centre for disease control and prevention

Predominant lifestyle related medical conditions seen in primary care include:

-
- 1. obesity
-
- 2. metabolic syndrome
-
- 3. hypertension
-
- 4. cardiovascular disease
-
- 5. dyslipidemia
-
- 6. arthritis
-
- 7. diabetes
-
- 8. osteoporosis

Katz DK et al. Jekel's Epidemiology, Biostatistics and Preventive Medicine, 2013.
McGinnis JM, Foege WH. JAMA,1993.

WHO (UK HEALTH)

- **UK health spending.** £ 185bn was spent on healthcare by government and privately. **95 %** in treatment less than **5%** on prevention.
- **Obesity.** **26%** of adults in the UK are obese.

- **57%:** of the UK population drink alcohol more than recommended limits.

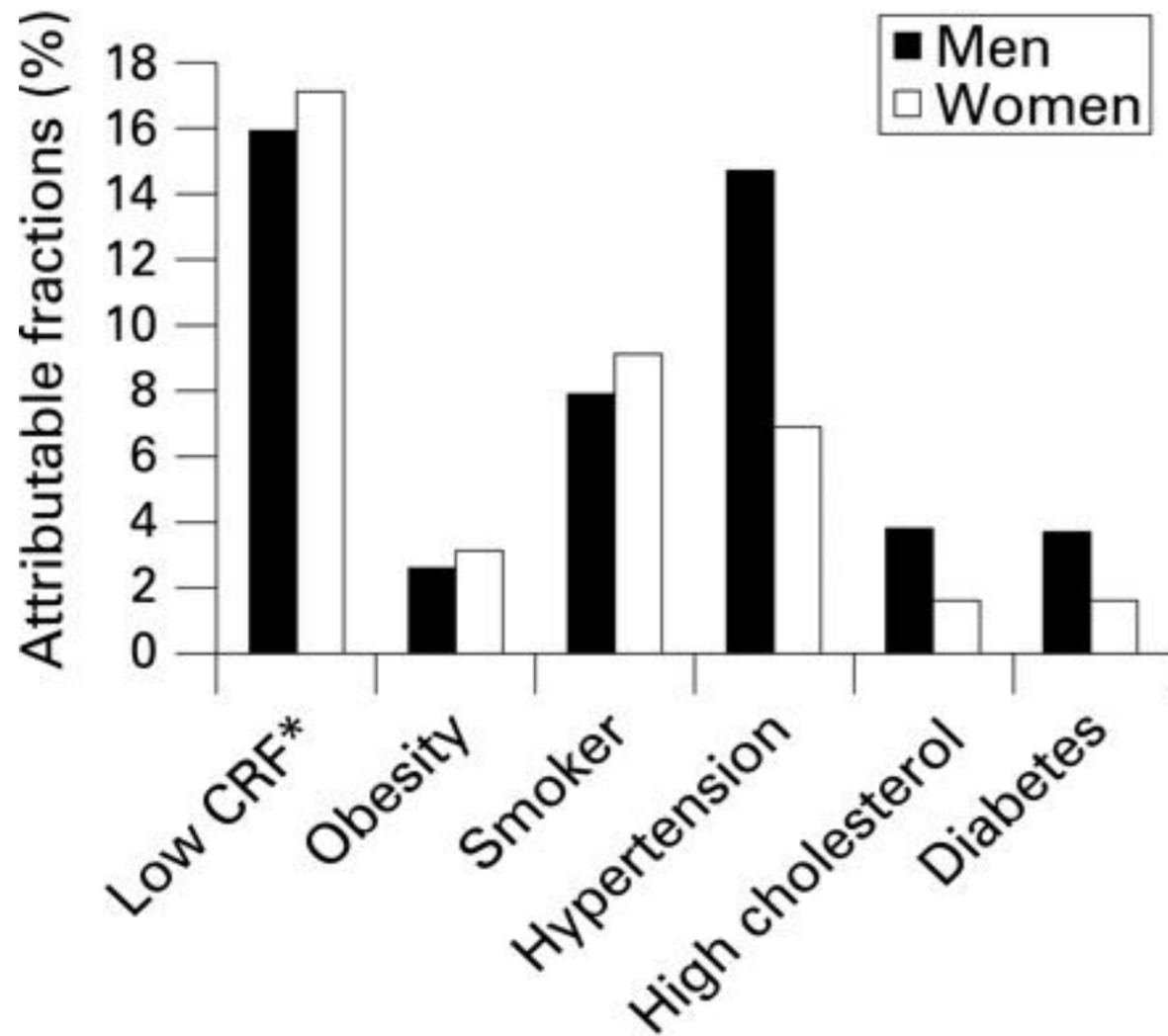
- **58%** of women were obese or overweight.
- **68%** of men were obese or overweight.

- **1 in 5** children in Reception were obese or overweight.
- **1 in 3** children in Year 6 were obese or overweight.
- **525,000** admissions to the NHS where obesity was recorded as a factor.

WHY LM?



- **80% of premature death come from Tobacco, diet , Physical inactivity, alcohol**
- **Only 3% population follow 4 healthy recommended lifestyle behaviours non-smoking/healthy eating/5 fruits and veg/ regular exercise.**
- **High cost of health care. Self care is cheaper.**
- **Decrease reliance on Medication**
- **Treat and prevent**
- **In prediabetics is more effective than medication (DM prevention trial)**
- **Empower people to take charge of their health.**
- **Non-adherence to medication 50-80%**



Attributable fractions (%) for all-cause deaths in 40 842 (3333 deaths) men and 12 943 (491 deaths) women in the Aerobics Center Longitudinal Study. The attributable fractions are adjusted for age and each other item in the figure.

*Cardiorespiratory fitness determined by a maximal exercise test on a treadmill.

Professor Steven N Blair, Department of Exercise Science and Epidemiology/Biostatistics, Arnold School of Public Health, University of South Carolina, South Carolina, USA.

British Journal of Sports Medicine

WHAT DIFFERENCE CAN 8-10% WEIGHT LOSS MAKE

- weight loss 3kg Tg reduce by 0.2mmol/l
- 5-8kg weight loss- LDL reduce 0.2mmol/l
- 5% weight loss BP s/d reduce- 3mmHg/2mmHg
- HbA1c reduce HbA1c reduce 0.6% -1%.
- Stopping smoking- increase up to 7kg
- high risk DM , weight loss 2.5-5.5 reduce risk 30-60%
- weight loss 9-13Kg reduce 25% mortality rate.
- Na restriction to < 1.5g/d (>1tbs day) can reduce BP 2.5-7mmHg

AIM OF LIFESTYLE MEDICINE

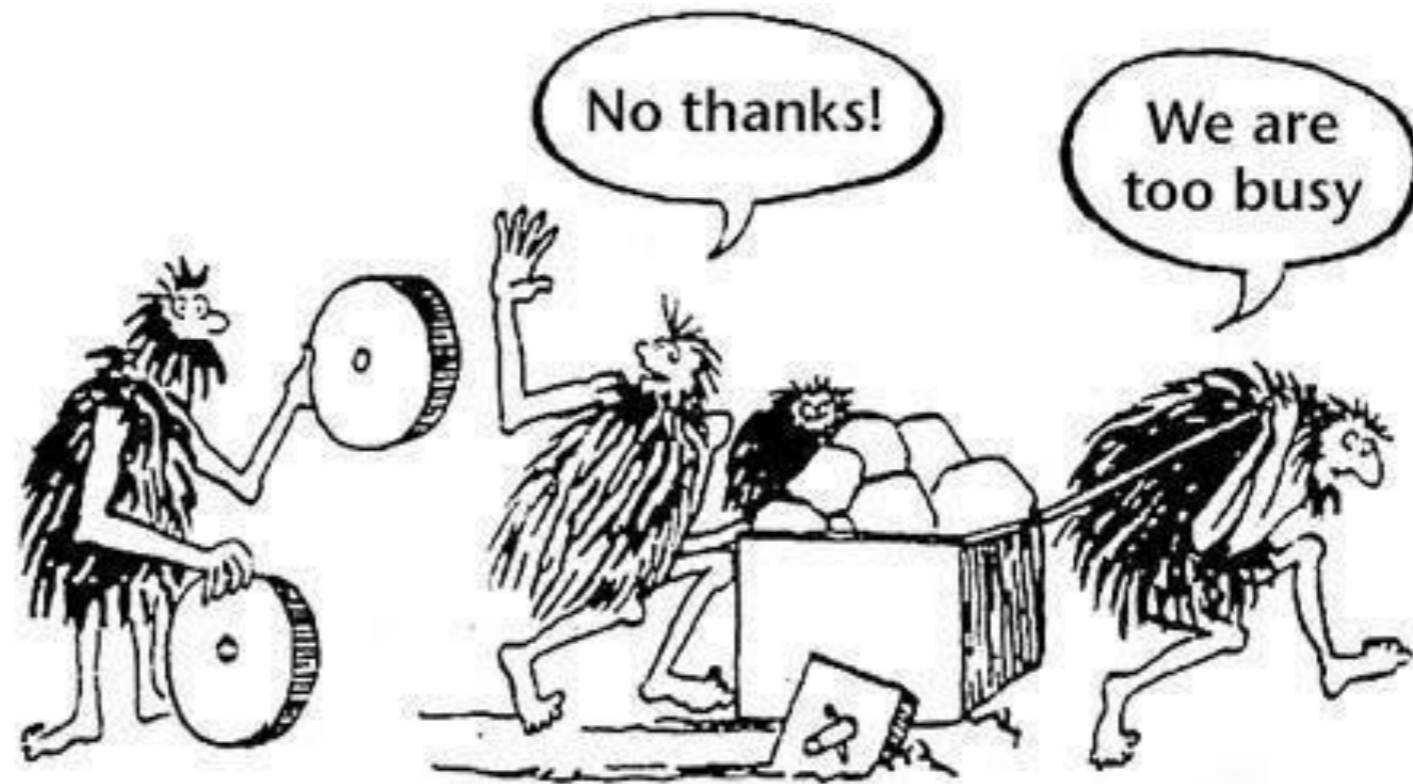
1. **Focus on Lifestyle behaviour**
2. **Prescribe lifestyle interventions** as treatment based on guidelines based on vital signs, PMX, physical examination and lifestyle factors.
3. **Coaching patient and families** using CBT, MI, Group based interventions.
5. **Be a leader in promotion**, get in a personal health plan to be and create healthy practices.
6. **GROUP** based interventions.

DOCTORS AS LEADERS

Doctors leaders in Prevention.

How many of us here eat healthily

How many of us Exercise ?



Parts of Lifestyle medicine

1. Nutrition
2. Physical Activity
3. Stress Management/Emotional wellness
4. Sleep
5. Smoking Cessation
6. Avoiding risky substance use
7. Emphasis on behavioural interventions and social/relationships, including happiness

Conventional Medicine vs. Lifestyle Medicine

Treats individual risk factors	Treats lifestyle causes with the goal of primary, secondary and tertiary disease
Patient is often passive recipient of care	Patient is active partner in care
Patient is not required to make big changes	Patient is required to make substantial transitions
Treatment is often short term	Treatment is always long term. Egger G. <small>Lifestyle Medicine. 2008</small>
Responsibility falls mostly on the clinician	Responsibility falls mostly on the patient; emphasis is on motivation and adherence
Medication is often the end treatment; emphasis is on diagnosis, prescription and management	Medication may be needed but as an adjunct to lifestyle change

**We are here not to convince patients
but to partner with them for a better outcome.
Ask Ready? Willing? Able?**

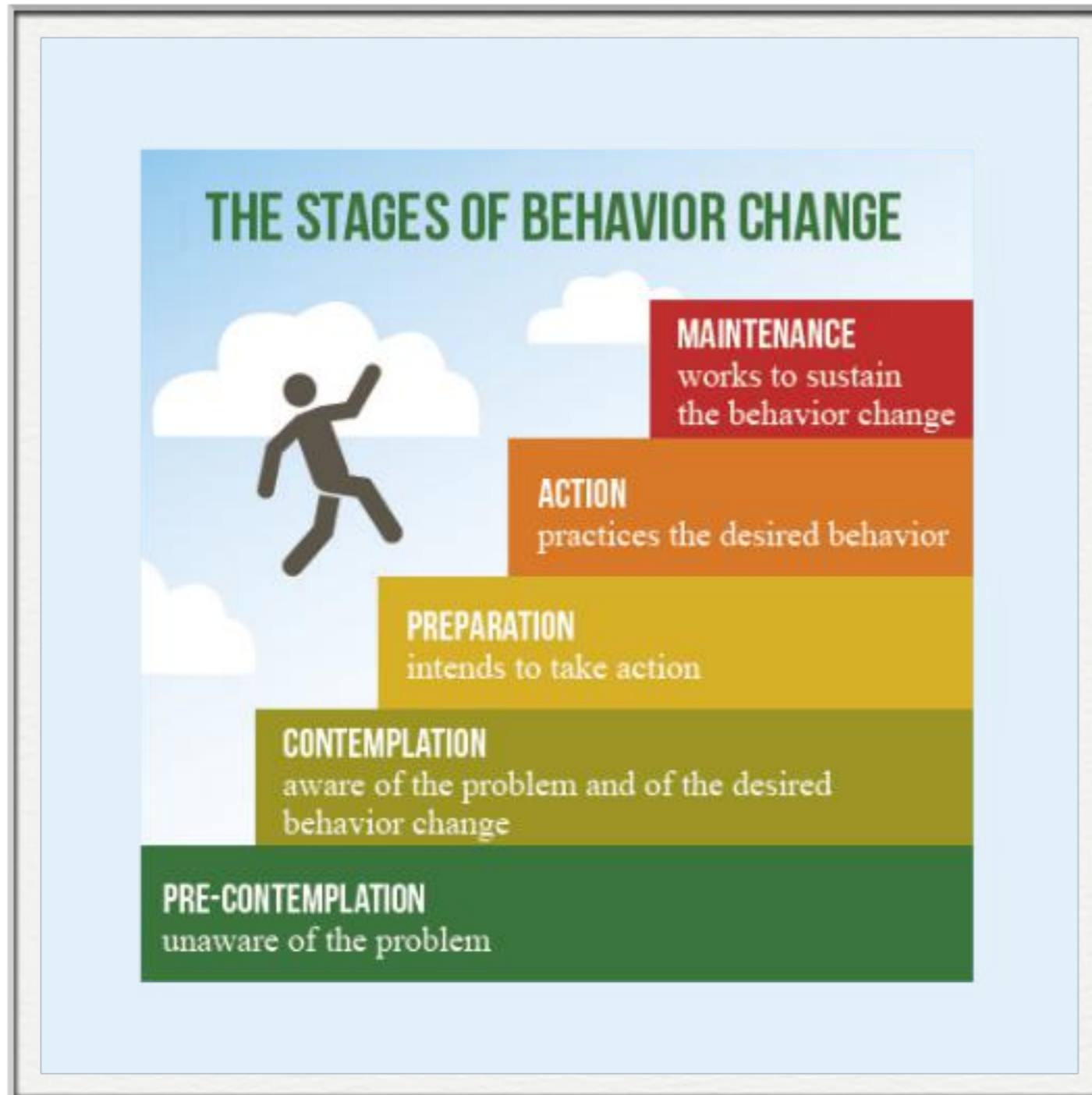
The Top 10 Effective Coaching Skills

1.  Listening	2.  Questioning	3.  Building Rapport	4.  Empathising	5.  Summarising & Reflecting
6.  Unlocking Limiting Beliefs	7.  Staying Focused	8.  Being Non-Judgemental and Open-Minded	9.  Giving Constructive Feedback	10.  Resisting Temptation to Tell

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What stage of change are they? Stage 1



STAGE 2. INCREASE EMPATHY

Increase Empathy to increase Trust and Rapport.

Thank you for coming here and participating in our conversation.

Can I ask you a couple of question about X ?

What is your typical day and X related ?

What do you know already about X ?

Query extremes. What do you enjoy about X ? What is the best thing about X?

what is the worst thing about X ?

What is important to you in your life ??

How does X affect your Y important thing in life?

What do you think will happen if you stop X ? if you don't stop X ?

What are your hopes, plan for the future? How does this can affect this plans?

Discrepancy- to Increase Self-Motivation I heard you enjoy it , on the other hand is affecting your Y and Z . i am here when you need help. It sounds like you are close to you family and X is stoping you keeping up with them? There ate effective ways and we want to help you avoid a stroke.

Roll with Resistance- sounds like you are feeling the pressure and are worried you can manage the withdrawals. Would you like to hear of ways we can help with those or it that all for today?

Increase Self-efficacy- so you were fairly successful last time you give up A, B . how did you do it? That shows us that you can achieve this.

Dr Empathy - improve patient adherence to Medications 12% and Improve recommendation following by 19%.

4. Support Self-Efficacy

1. Highlight effort / past success
2. Ask permission
3. "Elicit - Provide - Elicit"
4. Gauging Importance - Confidence - Readiness with a scale

Readiness, Motivation and Confidence Scales

READINESS On a scale from 1 to 10, with 10 being very ready, how ready are you to make a change?
1 2 3 4 5 6 7 8 9 10
Not at all Somewhat Very

MOTIVATION On a scale of 1 to 10, with 10 being very important, how important is it for you to change?
1 2 3 4 5 6 7 8 9 10
Not at all Somewhat Very

CONFIDENCE On a scale of 1 to 10, with 10 being very confident, how confident are you in changing?
1 2 3 4 5 6 7 8 9 10
Not at all Somewhat Very

STAGE 3. MEASURE EXPECTATIONS

- Expectation of weight loss
- Dream 30.9%
- Happy 25.2%
- Accepting 19.7%
- Disappointed with 10.4%

Develop a PLAN.

OBESITY ASSESSMENT

- **BMI, Waist circumference is at least as good an indicator of total body fat as BMI and is also the best anthropometric predictor of visceral fat.⁶⁶ Men with a waist circumference of 94 cm or more (90 cm or more for Asian men^{4,67}) are at increased risk of obesity-related health problems. Women with a waist circumference of 80 cm or more are at increased risk of obesity-related health problems.**
- **Bloods: LFT, HbA1c, TFT, LFT, Urinalysis**
- **Fitness level:**
- **Complications of Obesity.**
- **Calories and food groups- assessment**
- **patient previous history of weight**
- **Sleep and relaxation**
- **Social and psychological help/ affect.**
-

BEST PROGRAMS

- 14 session over 6 months
- Face to face team effort. And electronic delivered help as well.
- USPSTP maintenance 24m-54m better outcomes
- Nutrition
- PA
- Behaviour Mx (MI initial stage , CBT throughout)
- Attention Psycho-social needs.
- Dr Ornish 3months- Angina reduction 90% after 1y, Dr Pritikin 26days to prevent treat PVD. Dr Diehl 3months



AMERICAN COLLEGE of CARDIOLOGY

2013 AHA/ACC/TOS GUIDELINE FOR THE MANAGEMENT OF OVERWEIGHT AND OBESITY IN ADULTS

5

POINTS TO REMEMBER

1 Measure height and weight and calculate body mass index (BMI)

at annual visits or more frequently to identify patients who need to lose weight



▶ Continue use of current cut points to identify adults who may be at increased risk for cardiovascular disease (CVD):

Overweight
(BMI > 25.0-29.9 kg/m²)

Obesity
(BMI ≥ 30 kg/m²)

▶ The obesity cut point should be used to identify adults at increased risk for all-cause mortality

2 Measure waist circumference

at annual visits or more frequently in overweight and obese adults



▶ Use cut points defined by National Institutes of Health or World Health Organization

3 Overweight and obese adults with CVD risk factors should be counseled that even **modest weight loss** (3 – 5% of body weight)

can result in clinically meaningful benefits for triglycerides, blood glucose, glycated hemoglobin, and development of diabetes.



Greater weight loss (> 5%)

can further reduce blood pressure, improve lipids, and reduce the need of medications to control blood pressure, blood glucose, and lipids.

4 A diet prescribed for weight loss is recommended to be part of a comprehensive lifestyle intervention, a component of which includes a plan to achieve reduced caloric intake. Any one of the following methods can be used:

Prescribe

FOR WOMEN:

1,200 -1,500*
kcal/day

FOR MEN:

1,500 -1,800*
kcal/day



*kcal levels are usually adjusted for the individual's body

Prescribe a
500
kcal/day
or
750
kcal/day

ENERGY DEFICIT



Prescribe one of the

Evidence-Based Diets

that restricts certain food types (such as high-carbohydrate foods, low-fiber foods, or high-fat foods) in order to create an energy deficit by reduced food intake.

5 Prescribing a calorie-restricted diet should be based on the patient's preferences and health status, and preferably with a referral to a nutrition professional for counseling.



BEST DIET????????

Calories coming from diet Protein 15% vs Protein 25%

Calories from diet fat <30% vs fat > 40%

Carbs restrictive vs calories restrictive

calories from 65% cabs vs 35% carbs

Lifestyle intervention weight loss 5-10% in 6 months that can maintained at 24months.

FOOD PRESCRIBE/ SMART GOAL

➤ SMART

➤ Benefit. Breakfast -regular, meals 4-5 better than irregular less than 3 or more than 6. 16/ 8 fasting better than irregular. Jensen et al. AHA/ACC/TOS Guideline. Circulation. 2013

➤ Example:

Patient agreed to **decrease**- fish and cheeps take away from 5 times a week to 1 time a week for the first 2 months

Week 8-12 reduce fish and cheeps take away to twice per month.

fizzy drinks from 1 bottle a day to 1 bottle in 3 days for week 1-4 months.

Week 8-12 reduce fizzy drinks 1 bottle per week

Patient agreed to **increased** - boiled spinach and/or broccoli 1/2 cup per day with lunch from no vegetables before for 1

month than increased to twice a day for next 2 months.

Food increased- 1 apple a day before lunch for 2 months.

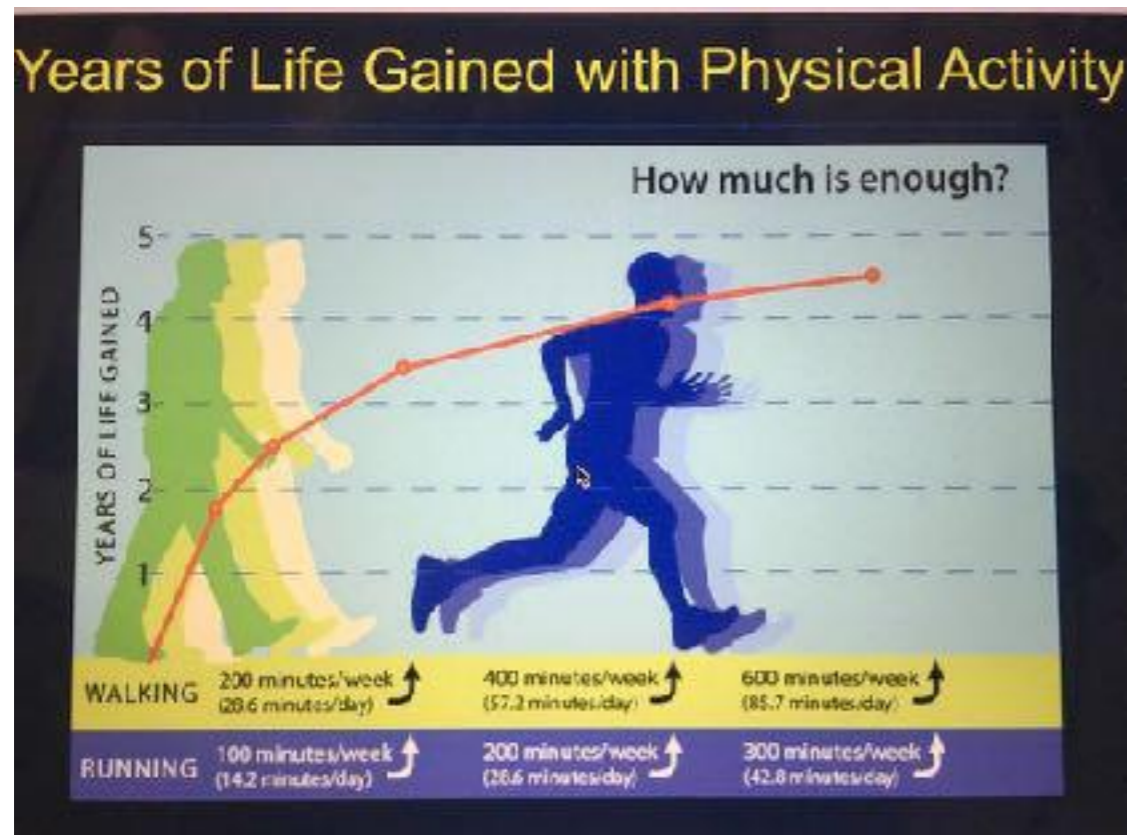
Add Have 1 slice watermelon with dinner week 8-12.

Week 1-12 - 1 glass water day before every meal for 2 months.

Week 8-12 have 1 bottle 1.5L at hand and aim to finish before supper time.

PA AND DIET IS BETTER THAN EACH ALONE

- weight loss start 150 min /week , better 250min/ week.
- prevent weight gain 150-250 min/ week
- 150min mod activity - reduce RR of mortality 20%
- Lipids - reduce 13% with 8 weeks strength training.



- ACPM: <https://health.gov/paguidelines/pdf/paguide.pdf>



SPAULDING REHABILITATION HOSPITAL
 125 NASHUA STREET
 BOSTON, MASSACHUSETTS 02114
 617-573-7000

PATIENT'S FULL NAME <i>John Smith</i>	PHONE NUMBER	AGE <i>45</i>	SEX <i>M</i>
ADDRESS <i>Needham, Massachusetts</i>		DATE <i>04/15/09</i>	

Rx *walk briskly 30 minutes per day*
lift weights twice per week

Refills 1 2 3 4 Forever
 No Refills Void After _____

Dr: *Edward Phillips, M.D.*

DEA: _____

Interchange mandated unless the practitioner writes the words "No Substitution in this space"



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EXERCISE IS MEDICINE

- Aerobic
- Strengthening (resistance)
- Flexibility (stretching)
- Balance

Week 1. walk 5min 00.

Week 2 -5min walk twice day.

week 3- 10min walk once a day.

Week 4. 10min walk twice a day. Agreed to walk together with colleague that is starting to walk too.

Week 5-8 walking 15min a day.

week 8-12- 30minutes 5 times a day

Week 1-8 Resistance training- every Monday and Wednesday on the days off to do twice a day squats 15 repetitions or until you fatigue.

week 8-12 - increase to 20repetitions twice a day , twice a week

Week 1-12 Stretching- 10minutes- every Wednesday and Saturday for 10minutes all major muscle groups. 3 reps hold 20-30sec. Leaflet provided with stretch moves explained.

At the We are aiming movement throughout the day to avoid prong sitting.

week 1-4 Break sitting time -every 2 hours to stand for 2minutes.

week 4-12 break prolong sitting every hour with 2minute standing / walking .

SLEEP HYGIENE

➤ **SMART** goal

➤ When you have interrupted sleep, irregular sleep you tend to eat ?????????? carbohydrate.

➤ **Stress and Sleep**

This patient red flags was sleeping 1-2h more on the weekend compared to during the week.

We agreed - she will sleep 1h early during the week that was 10pm.

No caffeine drinks 3hours before bed.

The increased fluids intake, water before every meal agreed will improve her sleep.

Aim to sleep 8 hours as that is the time that she feels refreshed.

She decided to start using a meditation app that she downloaded in the past for 10min before sleep.

➤ **Social support/ connectedness**

She will speak with her colleague that is her friend.

She will do the first 4 weeks walks with her. She showed her action plan to her husband and her children and made a copy to have in her room so they can all see and help her with her action plan.

Your mind will answer most questions if you learn to **relax** and wait for
... the answer. **W.Burroughs** ...



Zhangye Danxia Landform in Gansu, China

The Doctor of the future Will give no medicine but will interest his patients in the care of human frame, in diet, and in the cause and prevention of disease.

Th. Edison

