EVIDENCE-BASED

Prevention

Cancer, heart, metabolic, brain, bone and infection risk reduction - research-supported, not assumptions.

Prevention is not one magic pill. It is a measurable risk-reduction system.

Dr Rob note

This deck sets the foundation. In clinic, many patients have already addressed these basics and want the next level: personalised, measurable anti-ageing and risk-reduction care.

Foundation first - then next level

The current deck provides the prevention groundwork. Dr Rob wants the clinic/app to extend this into precision health optimisation for patients who have already addressed the basics.

Core message to add

Most patients Dr Rob will see are not starting from zero. They may already be non-smoking, active, screened, health-aware and motivated. The clinic role is to help them move from general prevention to personalised optimisation.

Patient language: foundations + next-level plan.

1. **Keep the foundation**

   Screening, vaccines, sleep, exercise, BP, lipids, glucose, weight and smoking/nicotine remain essential.

2. **Add the optimisation layer**

   Advanced biomarkers, body composition, protein/muscle targets, exercise prescription and personalised nutrition.

3. **Doctor-reviewed escalation**

   Medication, supplement and peptide-related claims require clinical review, evidence grading, safety checks and patient context.

4. **Measure outcomes**

   Track risk factors, symptoms, strength, waist, weight, HbA1c/glucose, lipids, kidney/liver markers and patient goals.

What is strongly supported

up to

40%

of cancer cases are considered preventable through modifiable risk reduction (WCRF/AICR).

[1]

Most major chronic diseases share the same upstream drivers:

Smoking / nicotine	Excess visceral fat
High blood pressure	High LDL / non-HDL cholesterol
Insulin resistance	Low fitness
Poor sleep	Alcohol
Poor diet quality	Missed screening

Not supported: replacing proven treatment, ivermectin/fenbendazole-style claims, or high-dose supplements sold as cures.

Evidence: [1] [3]

How much is actually preventable

Large shares of the biggest chronic diseases are potentially preventable through modifiable risk. The remainder is not simply 'genetics' - much is still unknown or not yet modifiable.

up to

40%

Cancer

of cases preventable through modifiable risk reduction.

WCRF / AICR [1]

up to

80%

Heart disease & stroke

of premature events preventable through healthy lifestyle (Life's Essential 8).

AHA / WHO [13]

up to

45%

Dementia

potentially preventable by addressing 14 modifiable risk factors.

Lancet Commission 2024 [14]

Evidence: [1] [3] [13] [14]

Simple and measurable - four moves

1

Do first

Stop smoking/vaping; keep alcohol as low as possible; be SunSmart; vaccinate where appropriate; attend screening.

2

Track numbers

Blood pressure, waist/weight, HbA1c/glucose, lipids (LDL/non-HDL), kidney & liver markers, vitamin D if at risk.

3

Build foundation

Mediterranean-style eating, 150-300 min activity/week, 2+ resistance sessions, consistent sleep, connection, stress care.

4

Escalate when needed

Evidence-based medicines when risk stays high: antihypertensives, statins/LDL lowering, diabetes/weight & bone therapy.

Evidence: [2] [3] [4] [5]

Cancer prevention - the proven levers

Do not smoke; avoid vaping/nicotine

Smoking remains one of the strongest preventable cancer risks.

Keep a healthy weight; cut visceral fat

Obesity is linked to several cancers and worsens cardiometabolic risk.

Eat mostly whole plants

Vegetables, fruit, legumes, wholegrains, nuts/seeds; limit ultra-processed foods and sugary drinks.

Limit red meat; avoid processed meat

Do not rely on supplements to prevent cancer.

Alcohol: lower is better

For cancer risk, no alcohol is the safest direction.

Be SunSmart (Australia)

Shade, clothing, hats, sunglasses, sunscreen; check changing lesions early.

Diet language update

Keep the anti-cancer message evidence-based, but avoid a rigid plant-only framing. Emphasise whole, nutrient-dense foods, adequate protein, healthy fats where appropriate, and strong reduction of ultra-processed/additive-heavy foods.

Evidence: [1] [2] [5]

DIET UPDATE

Nutrition language - less dogma, more personalisation

Replace strict plant-based wording with a measured, evidence-aligned message: whole foods, enough protein, healthy fats where appropriate, fewer ultra-processed foods, and individualised clinical targets.

Whole, nutrient-dense foods

Vegetables, fruit, legumes, nuts/seeds, dairy/eggs/fish/meat where appropriate - the focus is food quality, not ideology.

Protein target over 50

Practical range: 1.2-1.6 g/kg/day. Dr Rob may target around 1.6 g/kg/day for active patients, lean mass, recovery or frailty prevention when clinically safe.

Healthy fats acceptable

Use individual markers and goals. Prioritise unsaturated fats, omega-3 rich foods and whole-food sources; monitor LDL/non-HDL, ApoB if used, glucose and weight.

Avoid ultra-processed/additive-heavy foods

Keep the strongest dietary warning: reduce ultra-processed foods, sugary drinks, excess added sugar, refined starches and low-quality processed meats.

Clinical guardrail: higher protein and fat targets should be adjusted for kidney disease, lipid profile, diabetes/metabolic status, medications, appetite, body composition and patient preference.

Cancer screening and vaccines

Bowel cancer

Free home test every 2 years, ages 45-74. People 45-49 request their first kit; 50-74 are sent one automatically.

Cervical cancer

HPV-based cervical screening plus HPV vaccination are major prevention tools.

Lung cancer - NEW national program updated 2025

Free Medicare low-dose CT from 1 July 2025: ages 50-70, 30+ pack-year history, current smoker or quit within 10 years, no symptoms.

Breast, prostate, skin, family history

Individualised with the treating doctor based on age, sex, risk and history.

Vaccines reduce infection-driven cancer

HPV and hepatitis B vaccination lower infection-related cancer risk.

Evidence: [7] [8] [9] [11]

AHA Life's Essential 8

- Eat better
- Move more
- Quit nicotine
- Sleep well
- Manage weight
- Control cholesterol
- Control glucose
- Control blood pressure

Up to 80% of premature heart disease and stroke is preventable through healthy lifestyle (AHA). *Blood pressure is among the most important modifiable risks; LDL/non-HDL matters - medicine is evidence-based when absolute risk is high.*

Evidence: [3] [4] [6] [13]

Metabolic disease & diabetes prevention

Central driver: insulin resistance + visceral fat

Raises risk of type 2 diabetes, fatty liver, heart & kidney disease, sleep apnoea and some cancers.

Best non-drug actions

Weight loss if overweight, resistance training, aerobic fitness, high-fibre minimally processed diet, fewer sugary drinks.

Track the right numbers

Waist, weight trend, blood pressure, HbA1c, fasting glucose, triglycerides, HDL, ALT/GGT, kidney function.

Medication can be prevention

Metformin, GLP-1/GIP, lipid and blood-pressure therapies - clinician-guided when risk is high.

Evidence: [3] [4] [6] [10]

Brain health & dementia risk reduction

Vascular prevention is the strongest message

Control blood pressure, lipids, glucose, smoking, obesity and inactivity - core to the 14 modifiable factors behind up to 45% of potentially preventable dementia (Lancet Commission, 2024).

Exercise protects cognition

Aerobic, resistance and balance training are consistently linked to lower dementia risk.

Protect the modifiable risks

Treat hearing loss (a leading single factor), protect sleep, reduce alcohol, prevent head injury, stay connected, screen/treat depression.

Correct reversible problems

B12 deficiency, thyroid disease, sleep apnoea, medication side effects, vision/hearing loss. Supplements only fix deficiency.

Evidence: [3] [4] [10] [14]

Bone, muscle & fall prevention

Muscle is medicine

Resistance training 2+ days/week supports glucose control, bone loading, frailty prevention and independence.

Balance & mobility training

Reduces fall risk, especially after age 65 or after an injury.

Check the contributors

Vitamin D/calcium intake, kidney function, thyroid/parathyroid issues and medication risks when bone density is low.

Osteoporosis treatment prevents fractures

In high-risk people; the decision uses bone density, prior fracture history and overall risk.

Evidence: [4] [10]

Infection & inflammation prevention

Vaccination is prevention

Influenza, COVID, shingles, pneumococcal, HPV and hepatitis B where eligible or risk-based.

Lower chronic inflammatory load

Oral health, sleep, healthy weight, glycaemic control and not smoking.

Avoid unsafe practices

No unsafe injection or unregulated substances; separate peptide/repurposed-drug research interest from proven benefit.

Infection-driven cancer prevention

HPV and hepatitis B vaccination, plus hepatitis C risk reduction and testing where relevant.

Evidence: [5] [8]

Nutrition that supports proven prevention

Adjuvant means alongside - these reinforce the core stack; they never replace screening, risk-factor control or treatment.

Fibre 25-30 g/day

Lowers colorectal cancer risk, steadies glucose and feeds a healthier gut microbiome.

Healthy fats

Extra-virgin olive oil, oily fish (omega-3), nuts and seeds for cardiometabolic benefit.

Adequate protein, esp. 65+

~1.0-1.2 g/kg/day protects muscle and bone and helps prevent frailty.

Polyphenol-rich foods

Berries, leafy greens, tea and moderate coffee - modest but consistent associations.

Cut ultra-processed foods

Higher intake tracks with greater cardiovascular, cancer and mortality risk.

Hydrate; skip sugary drinks

Water first; sugar-sweetened drinks drive weight gain and metabolic risk.

Evidence: [1] [2] [3] [6]

Prevention does not stop at diagnosis

28%

lower risk of recurrence, new cancer or death with a structured 3-year exercise program after chemo for stage III / high-risk stage II colon cancer.

CHALLENGE RCT, NEJM 2025 - 5-yr disease-free survival 80% vs 74%. [12]

Stay active through and after treatment

Level-1 evidence now links structured exercise to better survival in colon cancer; observational benefit in breast cancer.

Protect muscle and weight

Dietitian-supported nutrition counters malnutrition and cachexia and preserves strength during treatment.

Keep controlling vascular risk

Survivors often face heart disease - continue blood pressure, lipid and glucose control.

Adherence is prevention

Taking endocrine and other maintenance therapy as prescribed reduces recurrence.

Evidence: [3] [10] [12]

Three zones - know which is which

GREEN - supported

Screening, vaccines, smoking cessation, SunSmart, exercise, blood pressure / lipid / glucose control, Mediterranean-style eating, healthy weight, sleep and alcohol reduction.

YELLOW - individualised

Vitamin D, B12, omega-3, GLP-1/GIP therapy, metformin, statins, aspirin, hormone therapy, osteoporosis medicines - useful in selected people, not universal.

RED - not proven

Ivermectin/fenbendazole for cancer, high-dose supplement protocols, replacing oncology care, detox claims, fear-based anti-protocols, 'one secret cure' messaging.

Evidence: [1] [2] [3] [5]

APP/CLINIC ROADMAP

Add a next-level anti-ageing pathway

For patients who have already handled the basics, the app can show an optimisation pathway while keeping evidence level, doctor review and safety clear.

1

Baseline

Risk factors, history, medications, goals, screening status and current lifestyle.

2

Measure

Waist, body composition, BP, lipids/ApoB if used, glucose/HbA1c, insulin context, liver/kidney, vitamin D/B12/thyroid when relevant.

3

Build

Protein target, resistance training, Zone 2/cardio, sleep, alcohol reduction, nutrition quality and recovery.

4

Escalate

Doctor-reviewed medications, hormone or peptide discussions, supplements, imaging or specialist referral where clinically appropriate.

5

Review

Track outcomes, side effects, adherence, labs and patient-reported goals before renewing or changing any plan.

Safety rule: do not present anti-ageing interventions as universal cures. Every card must show evidence level, who it applies to, action step, risks and source link.

Practical prevention plan for the clinic/app

New category

Prevention & Risk Reduction

- Cancer prevention
- Heart & stroke prevention
- Metabolic health
- Brain health
- Bone / muscle / falls
- Vaccines & infection
- Adjuvant nutrition
- Screening checklist

Every card shows

- Claim
- Evidence level
- Action step
- Who it applies to
- Who should not use it
- Source link

Doctor review gate: any medication, supplement or peptide claim needs sign-off before publishing.

Use patient language: "this can reduce risk" - not "this prevents everything."

Annual review - what to cover

Blood pressure

Measured correctly and acted on if high.

Blood tests

Lipids, HbA1c/glucose, kidney & liver; add B12, thyroid, vitamin D or iron when relevant.

Body composition

Waist and weight trend; focus on visceral fat and strength, not BMI alone.

Screening

Bowel 45-74 every 2 yrs; lung program if eligible; cervical/breast/prostate/skin by risk.

Lifestyle

Food pattern, activity minutes, resistance training, sleep, alcohol, nicotine, sun, vaccines.

Tailor screening to sex, age, family history and personal risk - not a one-size rule.

Evidence: [4] [5] [7]

References

[1] WCRF/AICR - Cancer Prevention Recommendations; up to ~40% of cancers preventable via modifiable risk.

[2] American Cancer Society - diet & physical activity guideline; 150-300 min moderate (or 75-150 vigorous) weekly.

[3] American Heart Association - Life's Essential 8 scientific statement.

[4] Australian Dept of Health - 24-hour movement guidelines; activity most days + strengthening 2+ days.

[5] Cancer Council Australia - quit smoking, SunSmart, healthy weight, limit alcohol, activity, screening.

[6] Heart Foundation Australia - heart-healthy eating pattern.

[7] National Bowel Cancer Screening Program - free home test every 2 years, ages 45-74.

[8] Cancer Australia - primary prevention; HPV & hepatitis B vaccination, infection risk reduction.

[9] USPSTF - lung cancer screening guidance (low-dose CT in high-risk people).

[10] WHO - physical activity guidance; >=150 min moderate or >=75 min vigorous weekly.

[11] National Lung Cancer Screening Program (Australia) - commenced 1 July 2025; free low-dose CT, ages 50-70, 30+ pack-years.

[12] Courneya/Booth et al, CHALLENGE trial - structured exercise after adjuvant chemo for colon cancer; NEJM 2025.

[13] American Heart Association / WHO - up to 80% of premature heart disease & stroke preventable through healthy lifestyle (Life's Essential 8).

[14] Lancet Commission on Dementia 2024 - 14 modifiable risk factors; ~45% of dementia potentially preventable.

Medical safety note: for education and clinical discussion only. Do not use it to delay, replace or stop prescribed medical care.

Additional references for Dr Rob notes

Used to support the dietary and next-level optimisation language added to this version.

[A] Dietary Guidelines for Americans, 2020-2025: USDA/HHS guidance emphasises healthy dietary patterns and limits added sugars, saturated fat and sodium.

[B] 2025 Dietary Guidelines Advisory Committee Scientific Report: submitted to HHS and USDA; supports ongoing review of food patterns and public comment process.

[C] FDA/HHS/USDA 2025 ultra-processed foods work: federal agencies moved toward defining ultra-processed foods and improving food transparency.

[D] PROT-AGE Study Group: older adults generally need at least 1.0-1.2 g/kg/day protein, with higher intake for active people or illness context.

[E] Protein meta-analysis: 1.2-1.6 g/kg/day has been suggested for lean mass gain or maintenance in healthy adults; about 1.6 g/kg/day supports resistance-training adaptation.

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