

WFPB nutrition case presentations



Morgen Smith, Exercise Physiologist

Dr. Nick Wright, GP

Dr Martyn Williamson, GP

WHOLE FOOD PLANT BASED (WFPB) NUTRITION



- Describes the consumption of whole or minimally processed plant foods
- No added oils
- No animal foods

CASE 1



Dr Martyn Williamson, FRNZCGP

Chronic Polymyalgia

- Mrs A. aged 76yrs at presentation
- PMH included bowel cancer which had been treated with surgery and currently 'cured'.
- Presented with increasing pain and stiffness in shoulders and hips consistent with PMR
- CRP mild to moderate elevation at 18
- Bp ranged from 140/80 to 164/90 (on antihypertensives)
- Weight 99.5kg

Progress

- For the next nine years she had continuing relapses on reduction of prednisone or when the dose was held at 5mg.
- 2 Rheumatology reviews over this period to confirm diagnosis and to advise on treatment.
- Steroid sparing medications tried such as methotrexate and azathioprine but reacted to them both

A last resort!

2017 I suggested that she and her husband might like to consider WFPB nutrition

Commenced 2 weeks later and there was immediate control of symptoms.

Flare ups ceased and CRP was less than 4

Results

- Weaned off prednisone over the next 6 months
- Flare up free
- Weight dropped from 99.5kg to 77kg
- Blood pressure normalised to average of 130/70 (no meds)

It's not straightforward tho.....

- After 18/12 confessed to 'cheating' on her diet.
- She developed a recurrence of PMR symptoms and had to restart prednisone (diagnosis confirmed at specialist clinic)
- Also had symptoms suggestive of a TIA

Mechanism of action

- WFPB nutrition has been used to treat a variety of autoimmune disorders
- Effects are most likely mediated via the impact on the gut microbiome
- Increasing amounts of healthy gut bacteria feeding on the increased fibre heal leaks in the gut lining, reducing or eliminating absorption of endotoxins or large partially digested proteins
- WFPB nutrition results in the absorption of many more antioxidant compounds which reduce ongoing inflammation

Lessons learnt

- What might seem an amazing result to me doesn't always appear that way to patients
- Mrs A's husband was probably the most keen to try and he pushed the change
- Mrs A's social life was built around her cooking and baking and she missed that part and resented it
- Patients have to be free to decide for themselves and be able to change their minds (and if she has multiple flare ups Mrs A may change her mind again)
- Social support and a community of others may well make a crucial difference

Case 2: Type II diabetes



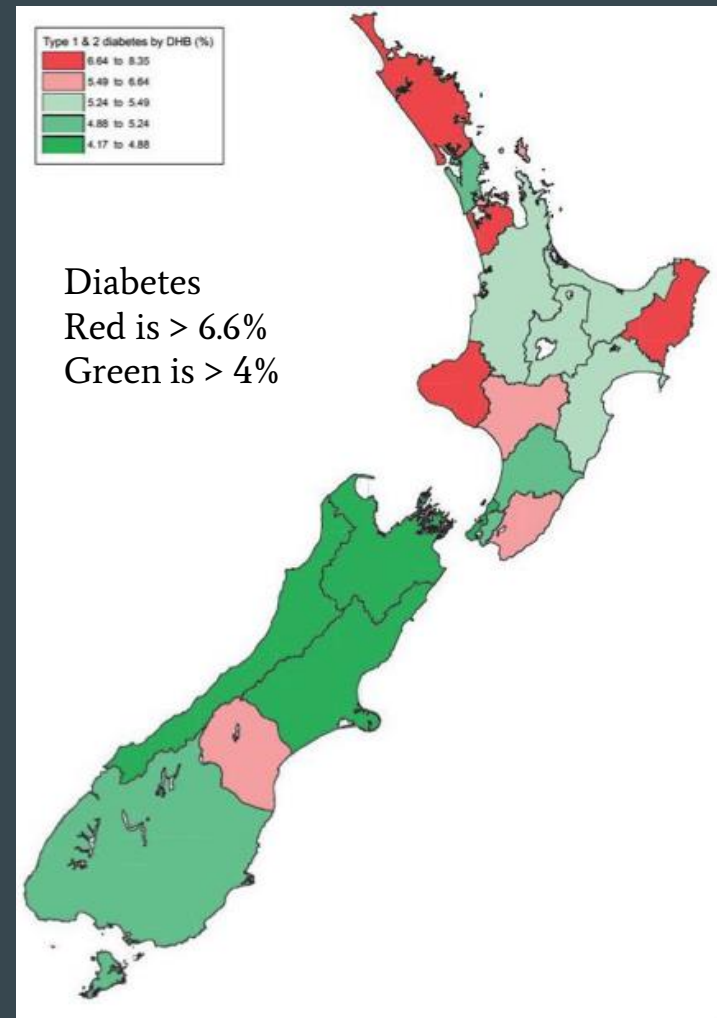
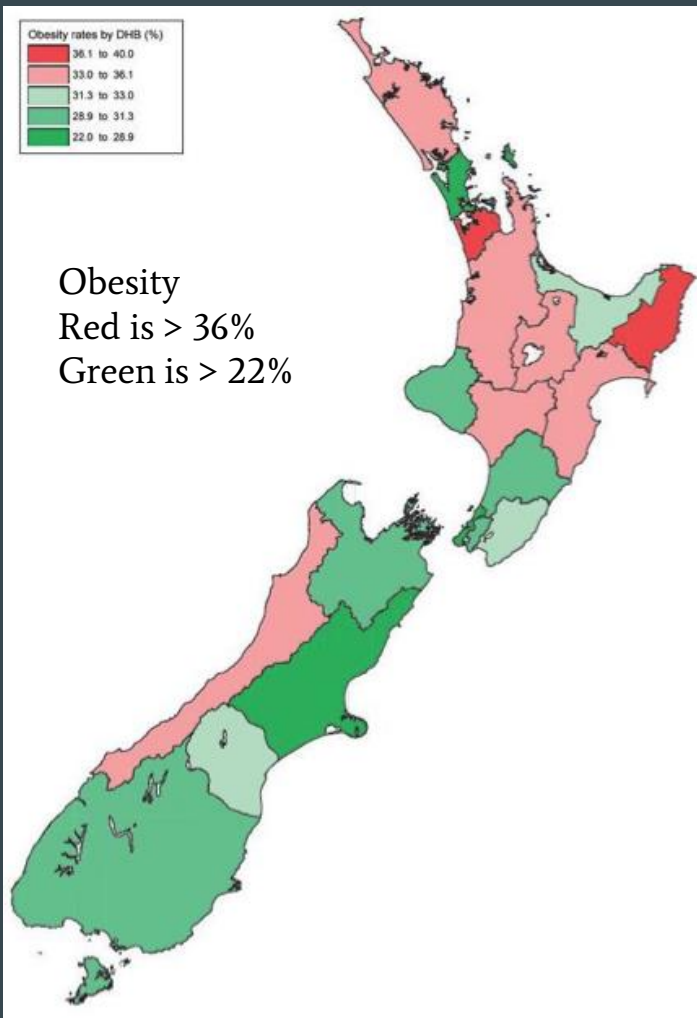
Dr Nick Wright, FRNZCGP,
Member American and Australasian College Lifestyle Medicine

Background

- Mr Tama Koia
- Permission given to share a short video
- Age 70
- From Whakatane
- Forestry worker from age of 16
- Slow decline in health
- Diagnosed with diabetes
 - What this meant to Tama
 - Progressed: licences, dialysis

Background

- PMH
 - Diabetes type II
 - Initially treated with metformin
 - At beginning of plant based diet was injecting insulin as well as taking metformin
 - Also background of:
 - Sleep apnoea
 - HTN
 - OA
 - Hyperlipidaemia
 - NAFLD



Background

- Local GP practice ok to help out with RCT
- BROAD programme
 - Hands-on skills based approach
 - Label reading, cooking, group problem solving
- Managed by own regular GP

ORIGINAL ARTICLE

The BROAD study: A randomised controlled trial using a whole food plant-based diet in the community for obesity, ischaemic heart disease or diabetes

N Wright¹, L Wilson², M Smith³, B Duncan⁴ and P McHugh⁵

BACKGROUND/OBJECTIVE: There is little randomised evidence using a whole food plant-based (WFPB) diet as intervention for elevated body mass index (BMI) or dyslipidaemia. We investigated the effectiveness of a community-based dietary programme. Primary end points: BMI and cholesterol at 6 months (subsequently extended).

SUBJECTS: Ages 35–70, from one general practice in Gisborne, New Zealand. Diagnosed with obesity or overweight and at least one of type 2 diabetes, ischaemic heart disease, hypertension or hypercholesterolaemia. Of 65 subjects randomised (control $n = 32$, intervention $n = 33$), 49 (75.4%) completed the study to 6 months. Twenty-three (70%) intervention participants were followed up at 12 months.

METHODS: All participants received normal care. Intervention participants attended facilitated meetings twice-weekly for 12 weeks, and followed a non-energy-restricted WFPB diet with vitamin B₁₂ supplementation.

RESULTS: At 6 months, mean BMI reduction was greater with the WFPB diet compared with normal care (4.4 vs 0.4, difference: 3.9 kg m⁻² (95% confidence interval (CI) ± 1), $P < 0.0001$). Mean cholesterol reduction was greater with the WFPB diet, but the difference was not significant compared with normal care (0.71 vs 0.26, difference: 0.45 mmol l⁻¹ (95% CI ± 0.54), $P = 0.1$), unless dropouts were excluded (difference: 0.56 mmol l⁻¹ (95% CI ± 0.54), $P = 0.05$). Twelve-month mean reductions for the WFPB diet group were 4.2 (± 0.8) kg m⁻² BMI points and 0.55 (± 0.54 , $P = 0.05$) mmol l⁻¹ total cholesterol. No serious harms were reported.

CONCLUSIONS: This programme led to significant improvements in BMI, cholesterol and other risk factors. To the best of our knowledge, this research has achieved greater weight loss at 6 and 12 months than any other trial that does not limit energy intake or mandate regular exercise.

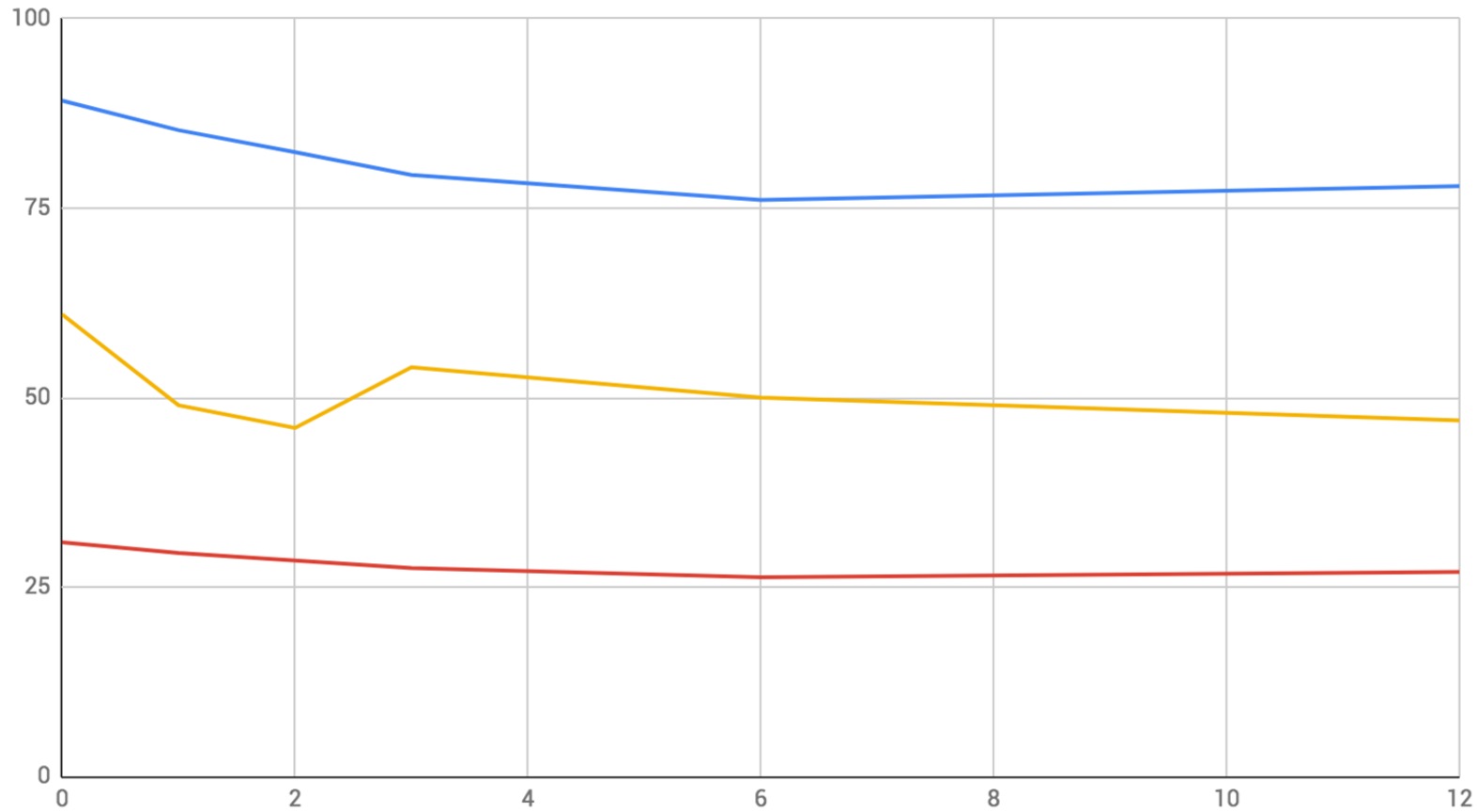
Medications

	Baseline	3 months	Month 6	12 Months	24 Months	
Lantus insulin	30 units nocte					
Metformin	1g BD	500mg BD	500mg	500mg	500mg	
Aspirin	100mg	100mg	100mg	100mg	100mg	
Ezetimibe	10mg	10mg	10mg			
Losartan	50mg					
Bezafibrate	400mg	400mg	400mg			
Atorvastatin	40mg			10mg	10mg	

Medications

	Baseline	3 months	Month 6	12 Months	24 Months	
Lantus insulin	30 units nocte					Stopped
Metformin	1g BD	500mg BD	500mg	500mg	500mg	Stopped
Aspirin	100mg	100mg	100mg	100mg	100mg	Stopped
Ezetimibe	10mg	10mg	10mg			Stopped
Losartan	50mg					Stopped
Bezafibrate	400mg	400mg	400mg			Stopped
Atorvastatin	40mg			10mg	10mg	Reduced

Wt BMI HbA1c



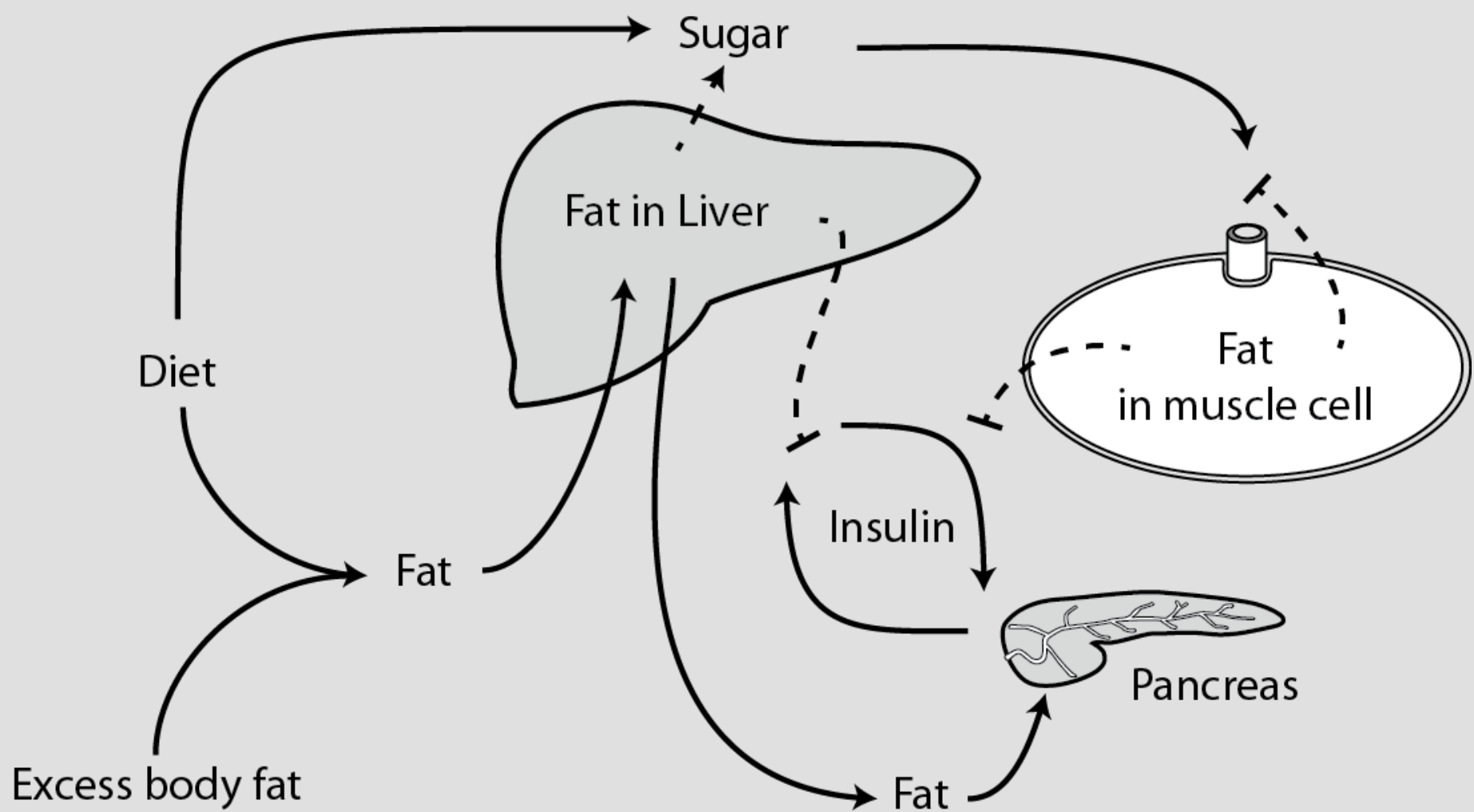
Measurements

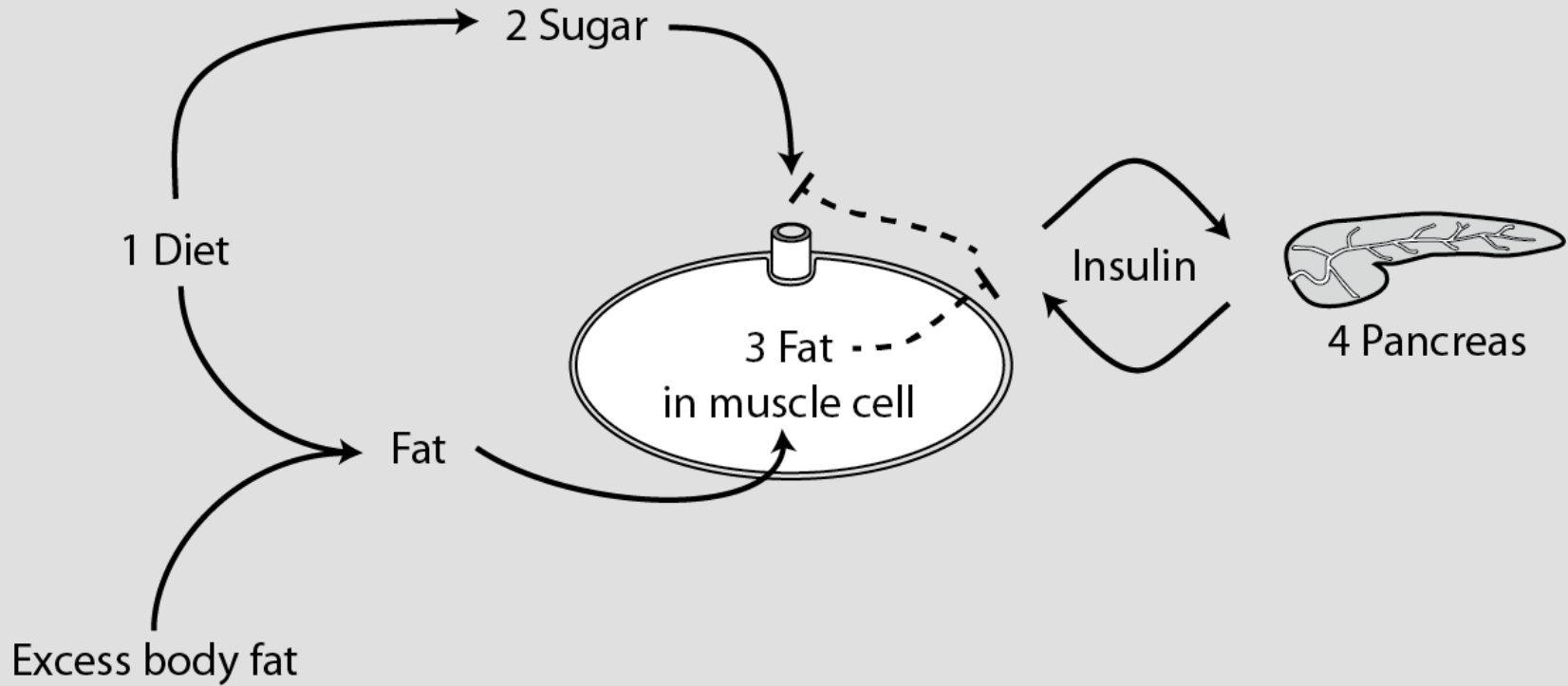
- Measurements

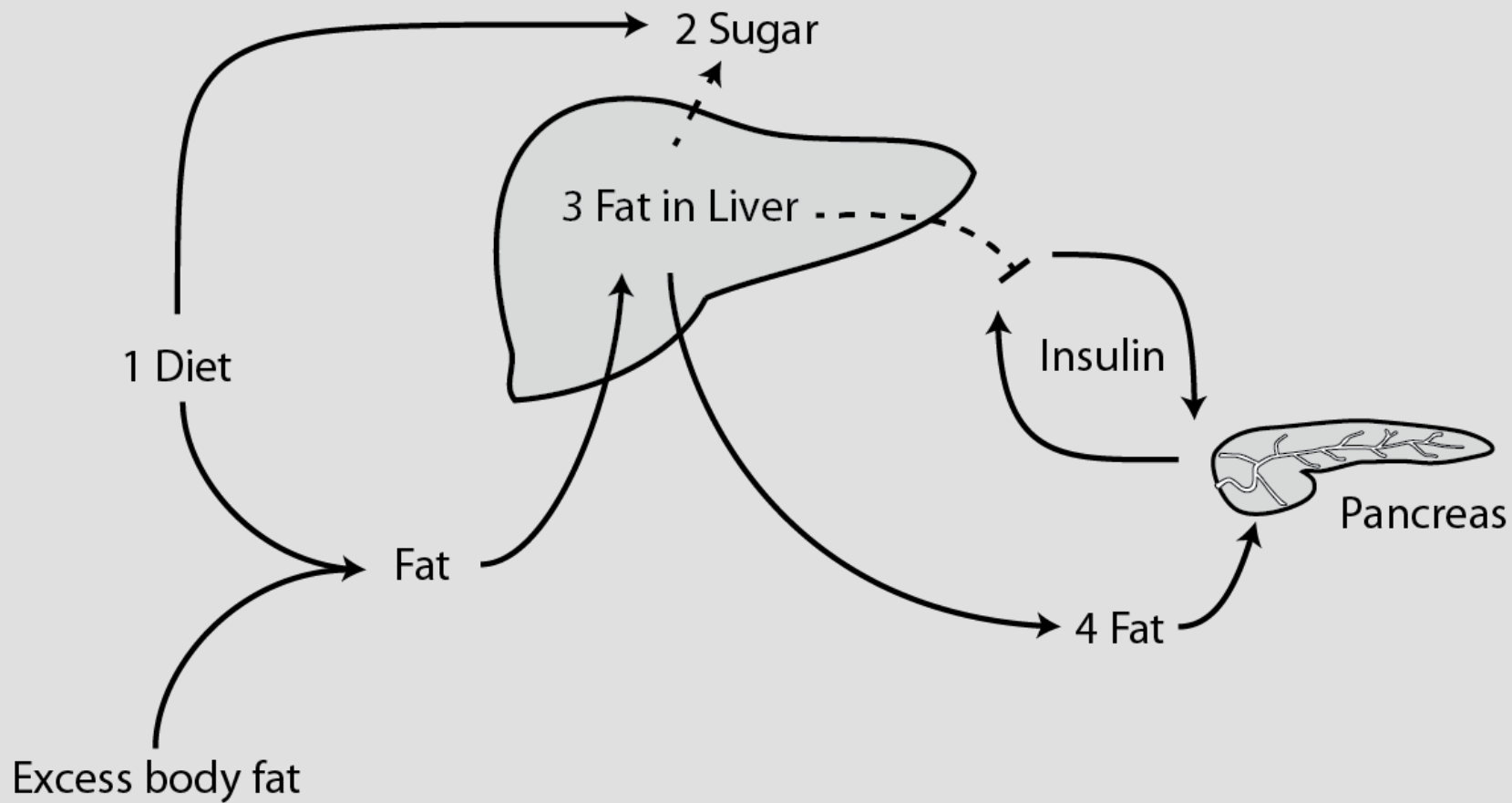
	Wt	HbA1c	
○ Baseline	89.2	61	
1 month insulin	85.3	49	Note not on
2 months	82.4	46	
3 months	79.4	54	
6 months	76.1	50	
12 months	77.9	47	
24 months	77.2		

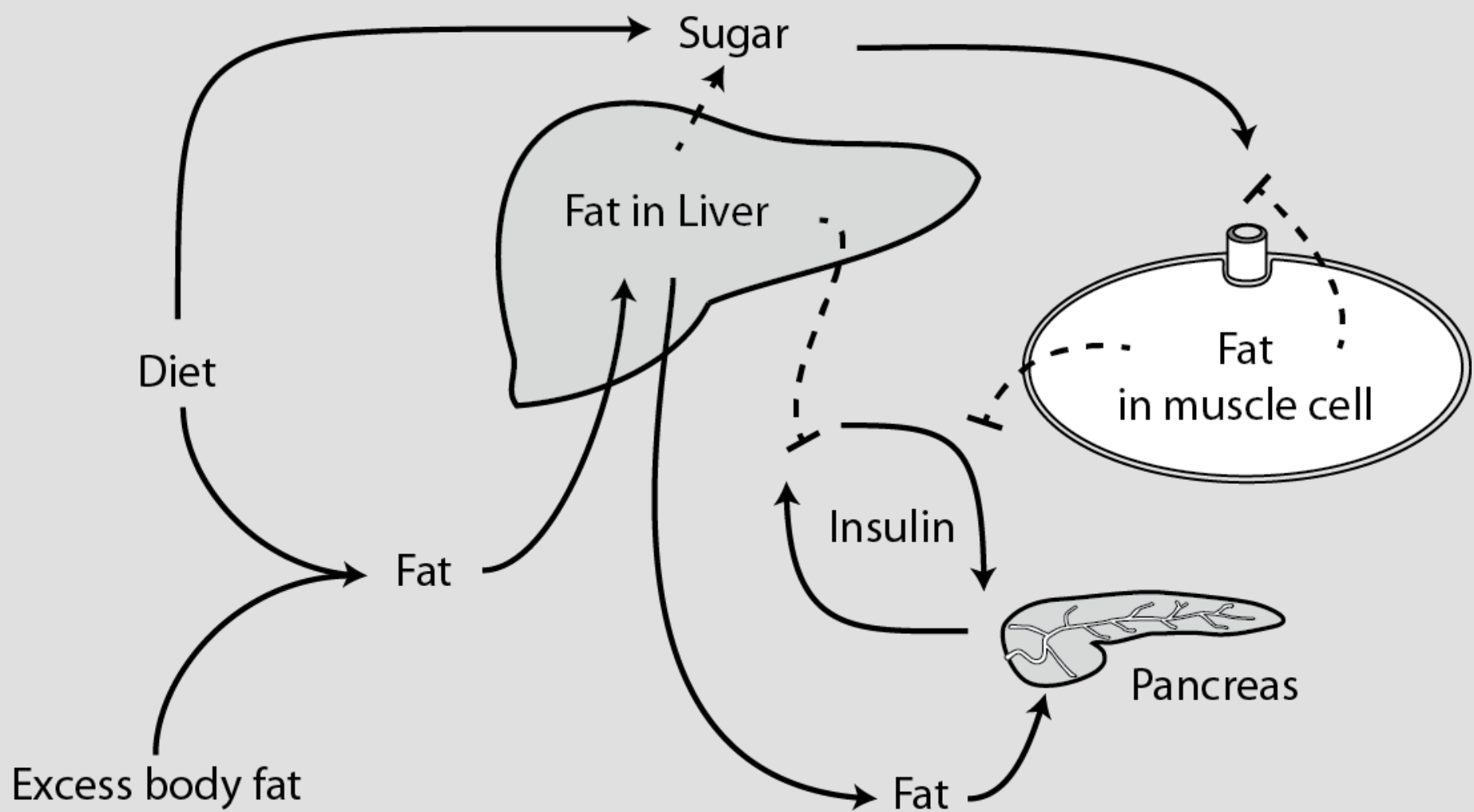
Mechanisms of action

- Multiple
 - Mechanisms of onset:
 - Best is the ‘twin cycles’ theory
 - Combination of direct and indirect effects
 - Pancreatic damage
 - Microbiota - inflammation
 - Hormonal - insulin resistance
- Resolution
 - May be improvements but incomplete resolution
 - If extensive damage to pancreas “reversal” may not be a realistic goal
 - We don’t know unless we try









Therefore lifestyle recommendations

- Food
 - +ve
 - Plants +ve
 - Herbs / spices
 - -ve
 - Meat is independent risk factor
 - Dairy problematic
 - High fat and refined foods
- Exercise +ve
- Other lifestyle factors important also

Case 3: Capillaritis

...

Morgen Smith

Capillaritis

Pigmented Purpuric Dermatosi

“Harmless”

Red-brown lesions of lower leg

Inflammation of capillaries and leakage of erythrocytes from increased vascular permeability

No commonly-accepted cure

Treated with topical steroids and compression stockings

Avoid dye in stockings, avoid aspirin



Source: Goldsmith LA, Katz SI, Gilchrist BA, Paller AS, Leffell DJ, Wolff K: *Fitzpatrick's Dermatology in General Medicine, 8th Edition*: www.accessmedicine.com

Copyright © The McGraw-Hill Companies, Inc. All rights reserved.

Case

63-year old female

10-year history of capillaritis

Diagnosed by a dermatologist on biopsy

Itchy sensitive red blotches

1-2mm and 1cm ulcerations on legs - oozing

Ulcers

Came on sporadically

Also precipitated by light touch

Worse in summer time

Painful - taking ibuprofen and occasionally codeine

Treatment Plan

Compression stockings - every day or sores would arise

Avoid black dye and aspirin

Semi-regular use of doxycycline as main treatment for flares

Patient's View

Upset by “unsightly” sores

Highly adherent to treatments, but no improvement

Low point - wearing compression stockings to her daughter's wedding

Presentation

Routine appointment for doxycycline

Medications: ibuprofen and codeine PRN, pantoprazole

Non-smoker, Minimal alcohol

BMI slightly elevated

No systemic symptoms, no vascular symptoms

No abnormal blood tests

Intervention

“An experiment”

WFPB diet: improves endothelial function

increase endogenous production of nitric oxide

Possible side effects - some weight loss

Re-Presentation

Flare ups tied to adherence to the diet, but overall less painful and irritating

Fried foods and meat particularly problematic

“90% diet change” = no ulcers

Threw her compression stockings into the ocean and never looked back

Presented to clinic 1 year later

Proposed Mechanism

High fat meals (meat and fried foods) prevent L-arginine from being able to form nitric oxide

Saturated fats from animal products increase the permeability of the intestinal lining = translocation of bacterial endotoxins (does not happen with fruits and vegetables)

One meal with animal products causes inflammation that peaks several hours after the meal

Regular 3-6 hour meals = chronic low grade inflammation

Diet that removes the inflammatory assault and restores production of nitric oxide

In conclusion

Remission of capillaritis - symptom-free for three years

Huge improvement to quality of life

Patient herself saw no downsides to this, healthier overall

Potential to be explored further in other patients

Resources for Practitioners

Plantbasedvideos.com

how to - free - Nick and Morgen

Plantstrongliving.co.nz

Martyn's work

Veg and Vines conference

Nutritionfacts.org

highcarbhealth.com

drmcDougall.com

Prevent and Reverse Heart Disease book