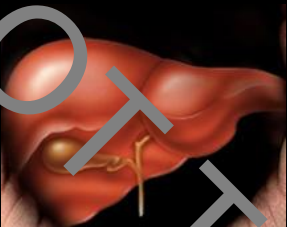


The Revolution in Real World Management of Type 2 Diabetes

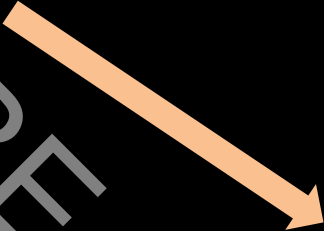
Roy Taylor

2006 Aetiology of type 2 diabetes: Twin Cycle Hypothesis

Excess liver fat



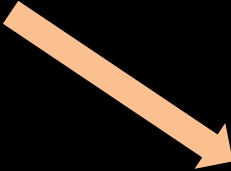
Excess fat export



Excess pancreas fat



Beta cell dysfunction



How to achieve weight loss

Simple

Practical

Spouse/partner on board

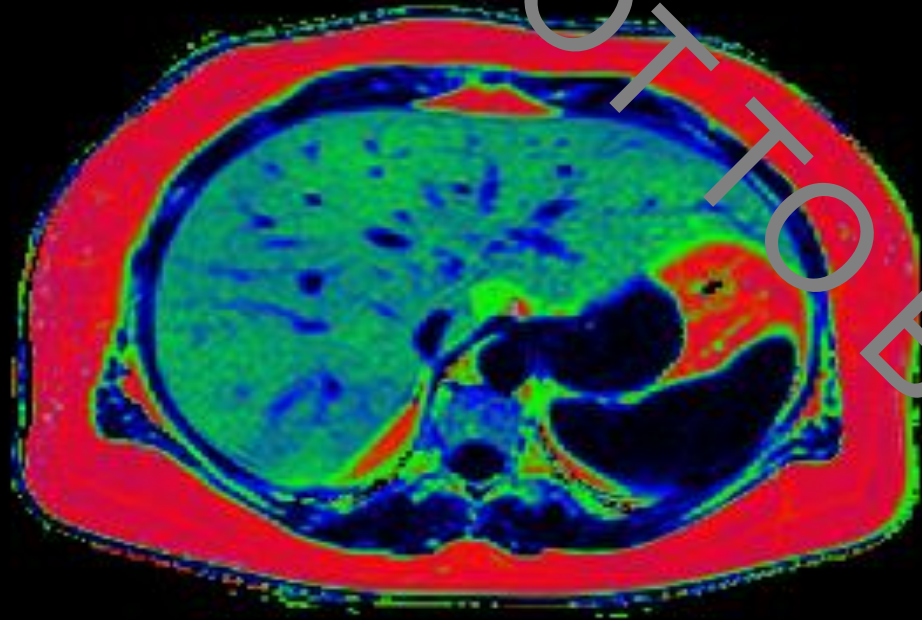
Duration limited and planned

*Compensatory eating
renders exercise counterproductive
during weight loss*



Counterpoint

Change in liver fat content



Baseline

36% liver fat

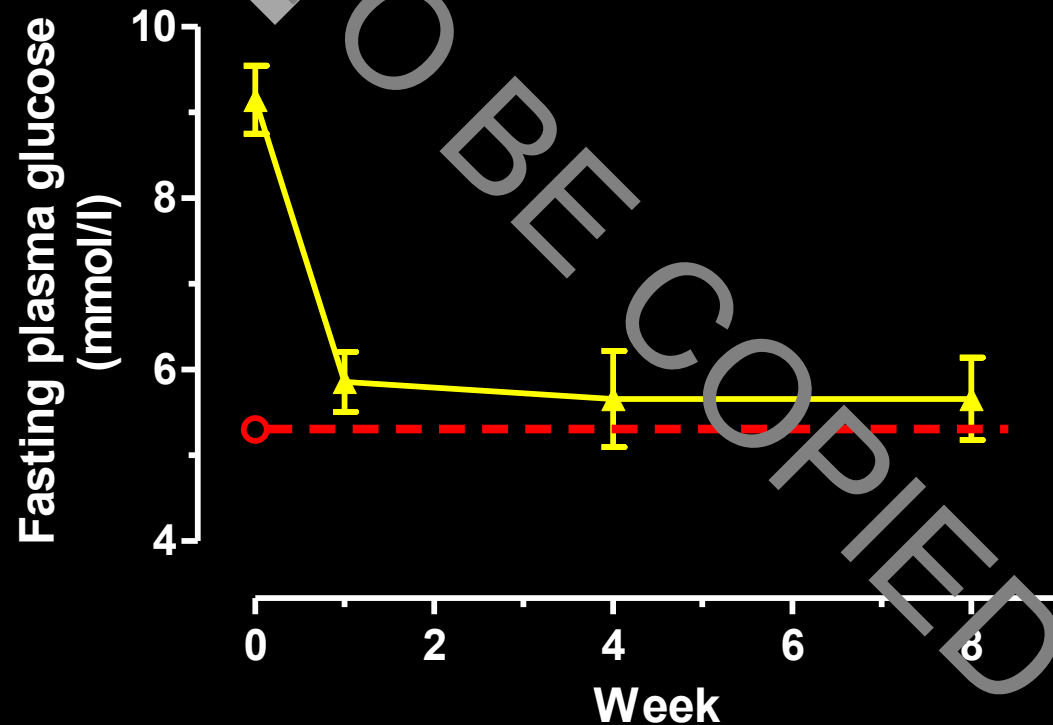
100%

0%

Testing the Twin Cycle Hypothesis

Type 2 diabetes - 0-4 years duration

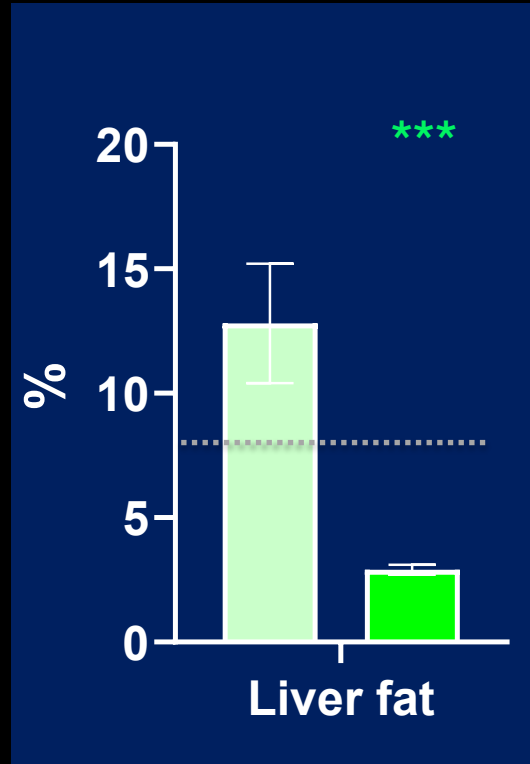
Stop hypoglycaemic agents
Start 800kcal/day



Counterpoint

Testing the Twin Cycle Hypothesis

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■ Baseline Non-diabetic control group
■ Week 8

*** $p < 0.003$ * $p < 0.03$ vs. baseline

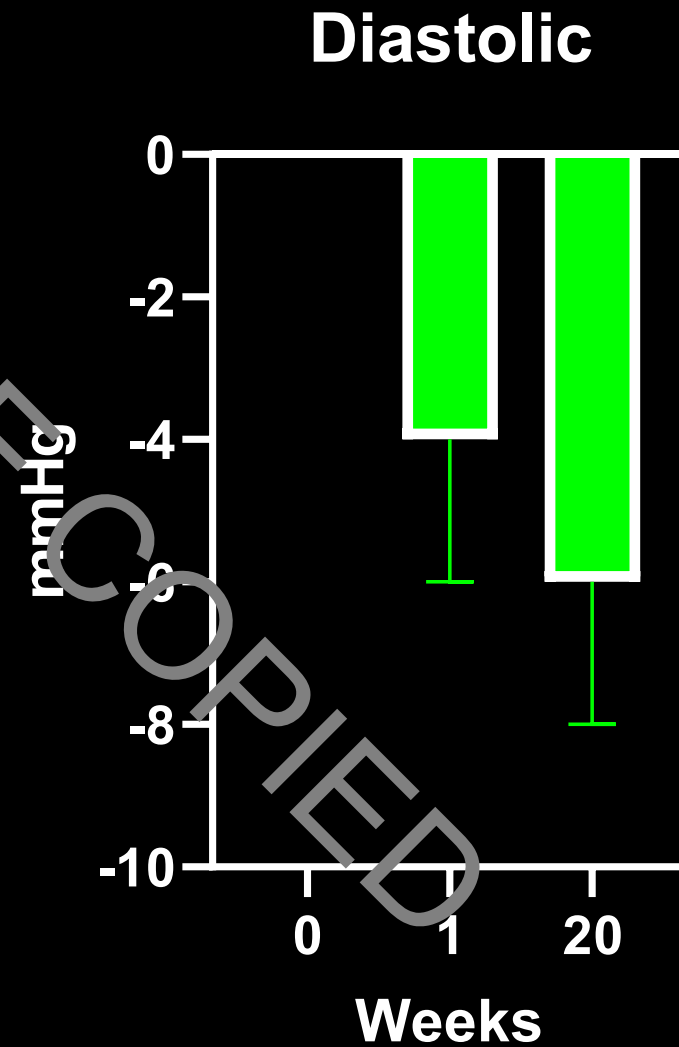
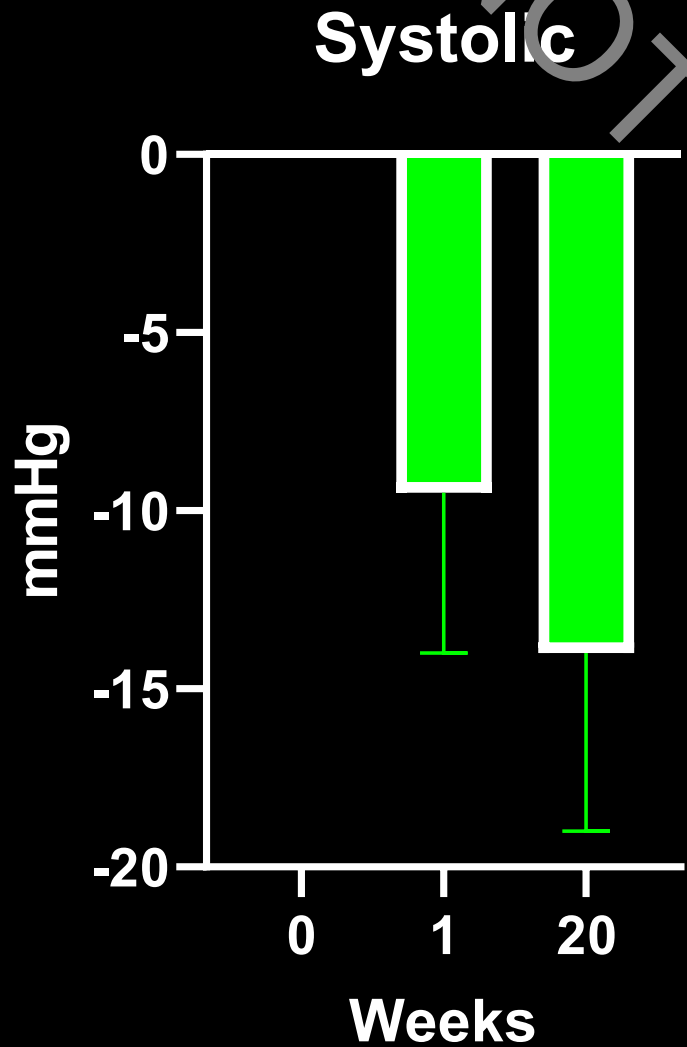
Is 15kg weight loss /
T2D remission possible in
Primary Care?

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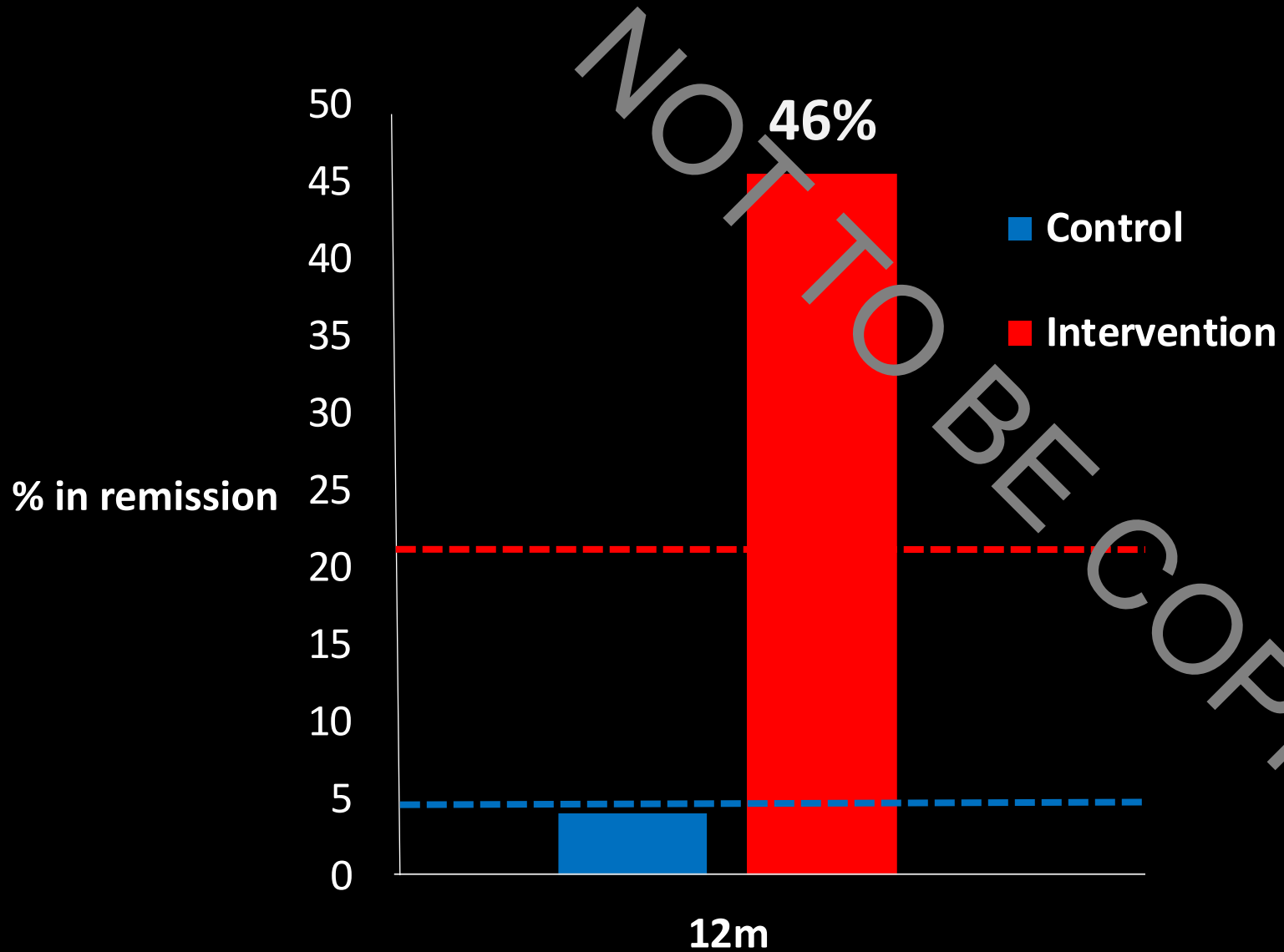


Blood pressure improvements in Counterbalance

Antihypertensive agents stopped on day 1 of low calorie diet



DiRECT: Remissions at 12 months



$p < 0.001$ at 12 and 24 months

Lean et al Lancet Diab & Endo 2019; 7:344-55

DiRECT - 5 year follow up

Weight 6.1kg below baseline

Remission in 13%

Those who avoided weight regain stayed in remission

NHS England Type 2 Diabetes Remission Programme (n=1,710)

1st year data

Delivered by independent providers

T2D of 0-6 years duration

Aim – 10-15kg weight loss

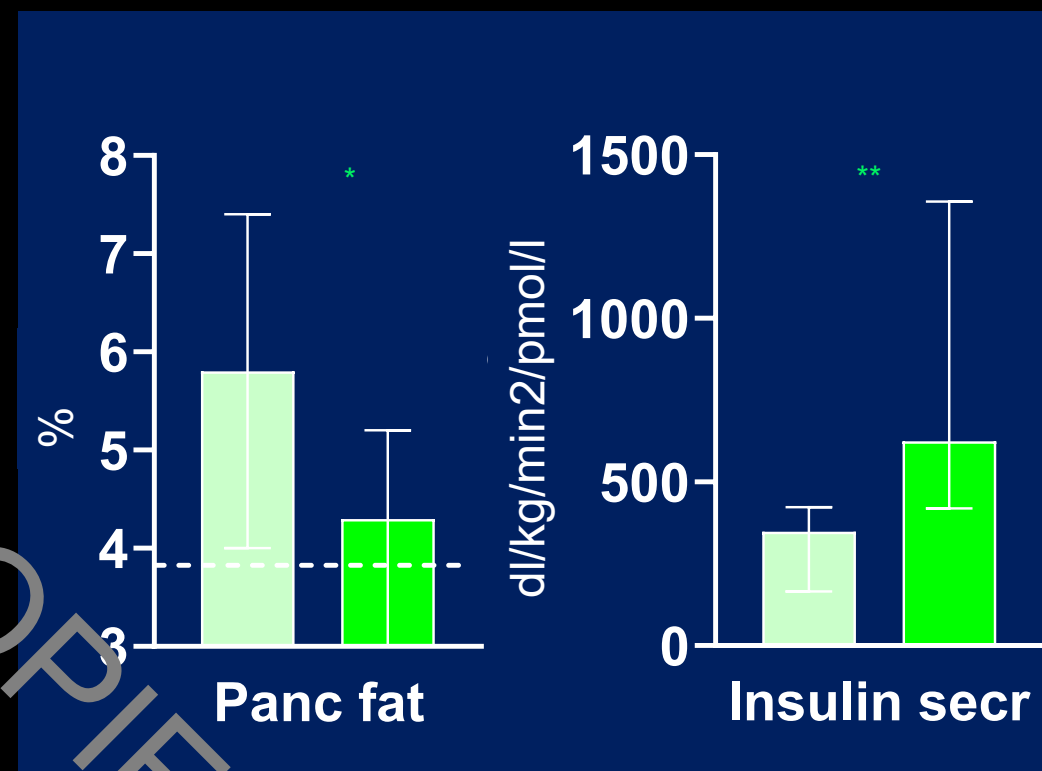
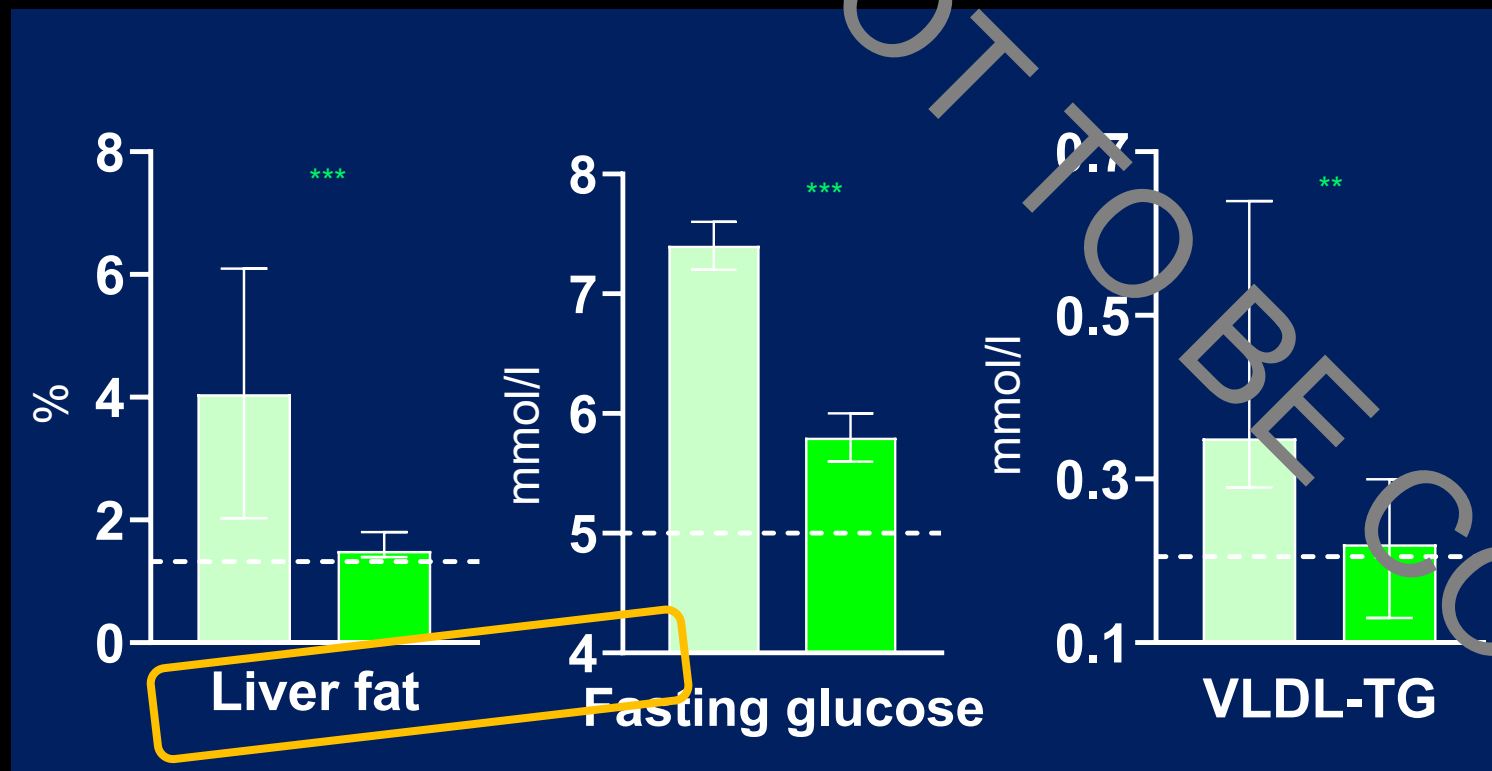
10.3kg weight loss at 1 year

35% - HbA1c <48mmol/mol x2

27% - Formal remission



The ReTUNE study 1 year data: Weight loss in people with type 2 diabetes and BMI 21-27kg/m² Testing the Personal Fat Hypothesis



■ Baseline ■ Post wt loss

..... Non-diabetic control group

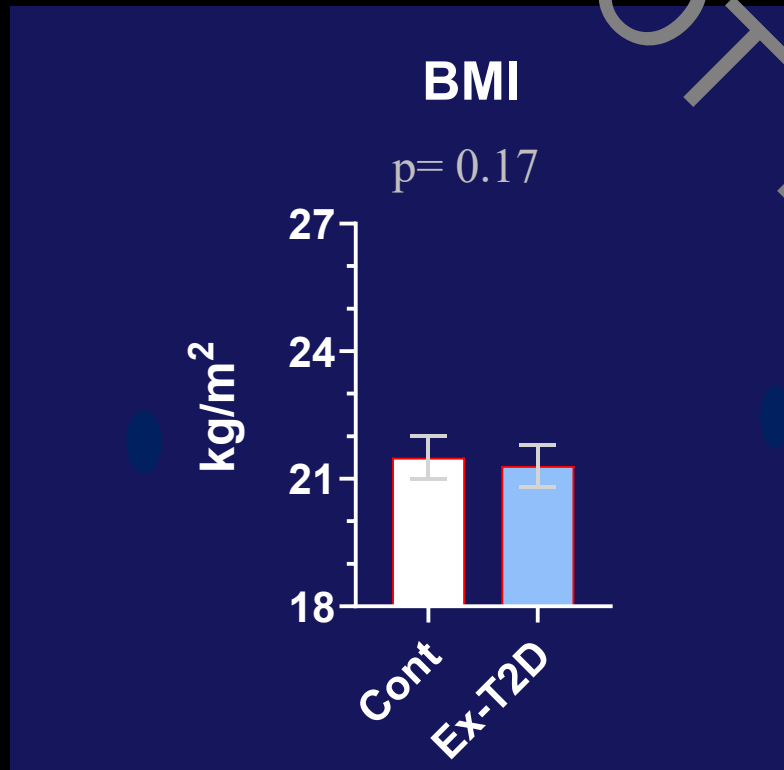
*** p<0.001 * p<0.01 vs. baseline

The ReTUNE study 1 year data: Weight loss in people with type 2 diabetes and BMI 21-27kg/m² Testing the Personal Fat Hypothesis



■ Baseline ■ Post wt loss
..... Non-diabetic control group
*** p<0.001 * p<0.01 vs. baseline

Waist circumference is high in T2D – even after weight loss and remission



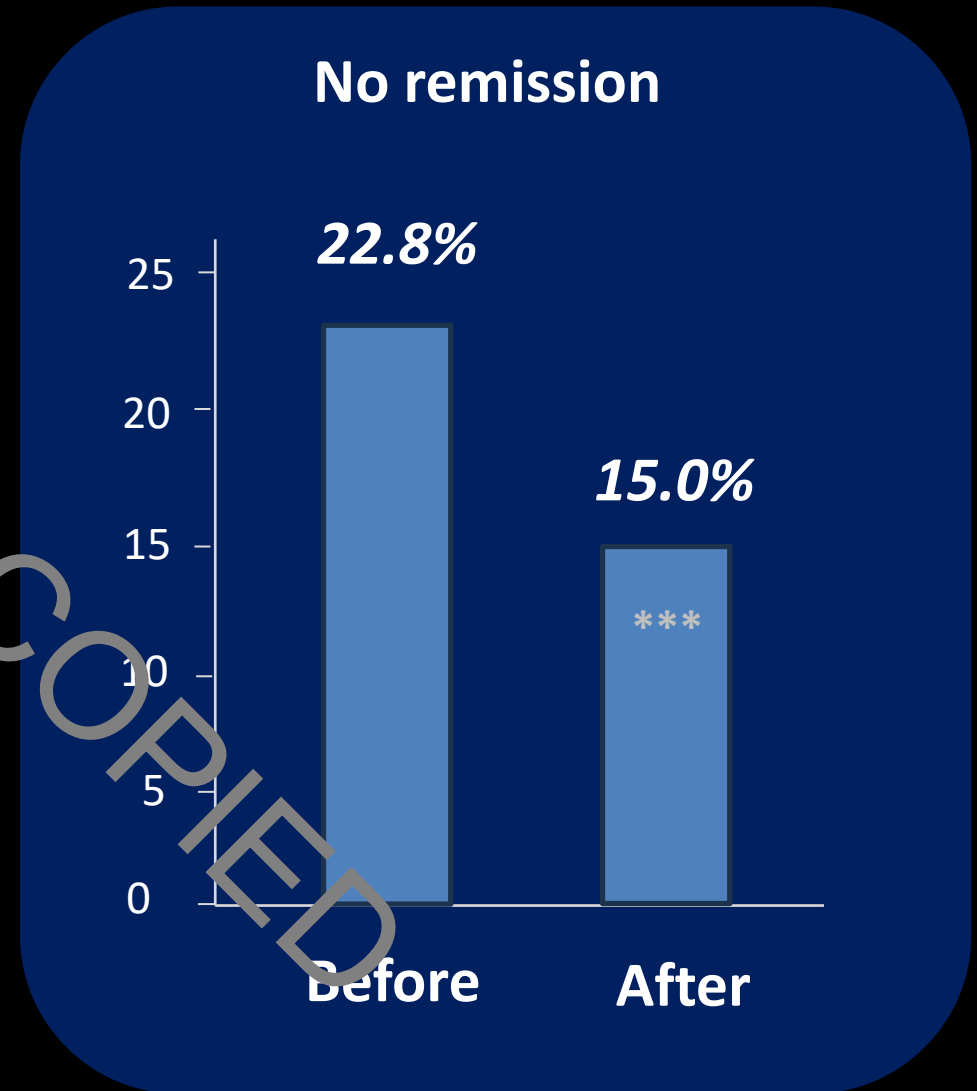
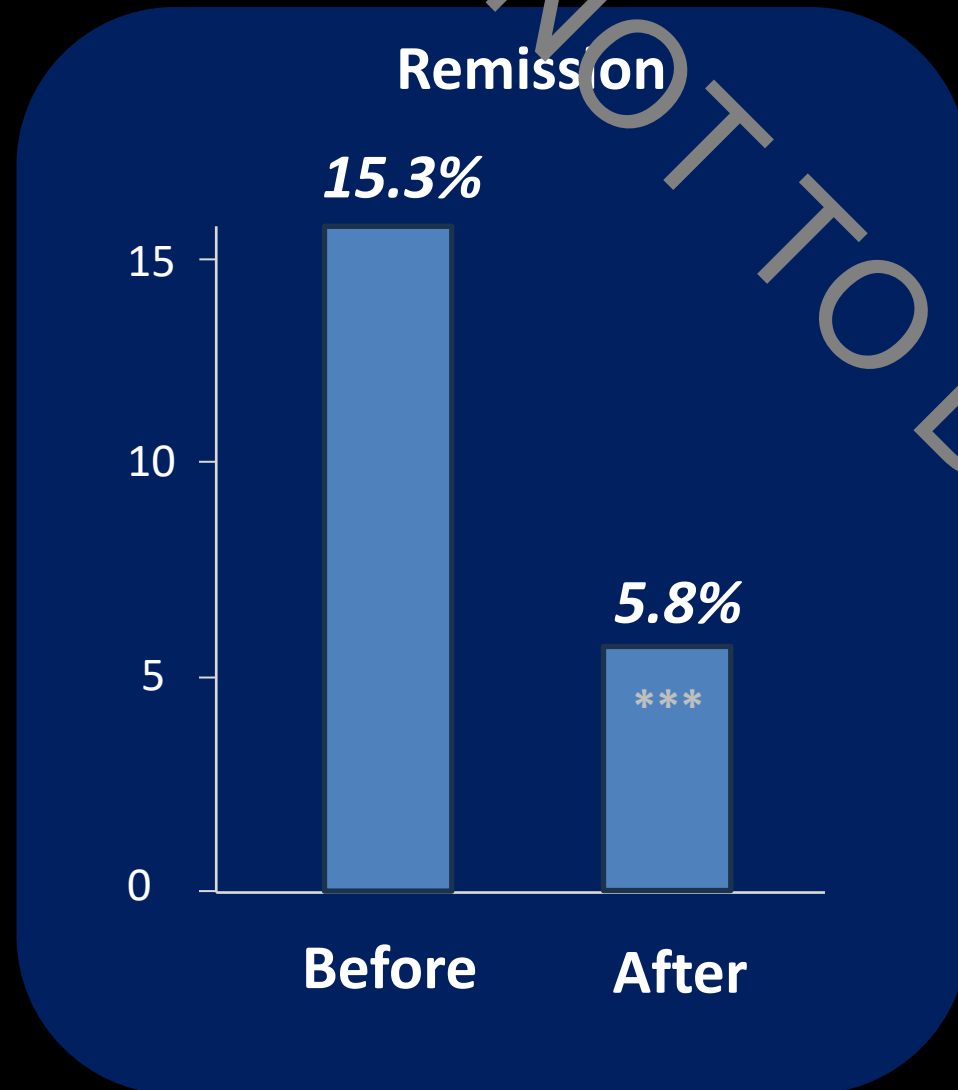
- Non-DM controls
- T2D after weight loss

Why should I try for remission, Doc?

- Cut your **heart attack** risk
- Cut your risk of **stroke**
- Cut your risk of **cancer**
- Get rid of obstructive sleep apnoea
- ***Feel 10 years younger – more energy***

10 year CV risk before and after weight loss

2016 Counterbalance study - of type 2 diabetes up to 23 years duration



Serious Adverse Events in DiRECT over 5 years



Independent psychology analysis: benefits to individuals



- Feeling 10 years younger
- Losing the 'diabetic' label
- No diabetes tablets/injections
- Outlook for long term health
- Less time at the doc's
- No excess insurance costs



2013

Weight 126kg

HbA1c 9.2%

2014:

Weight 94kg

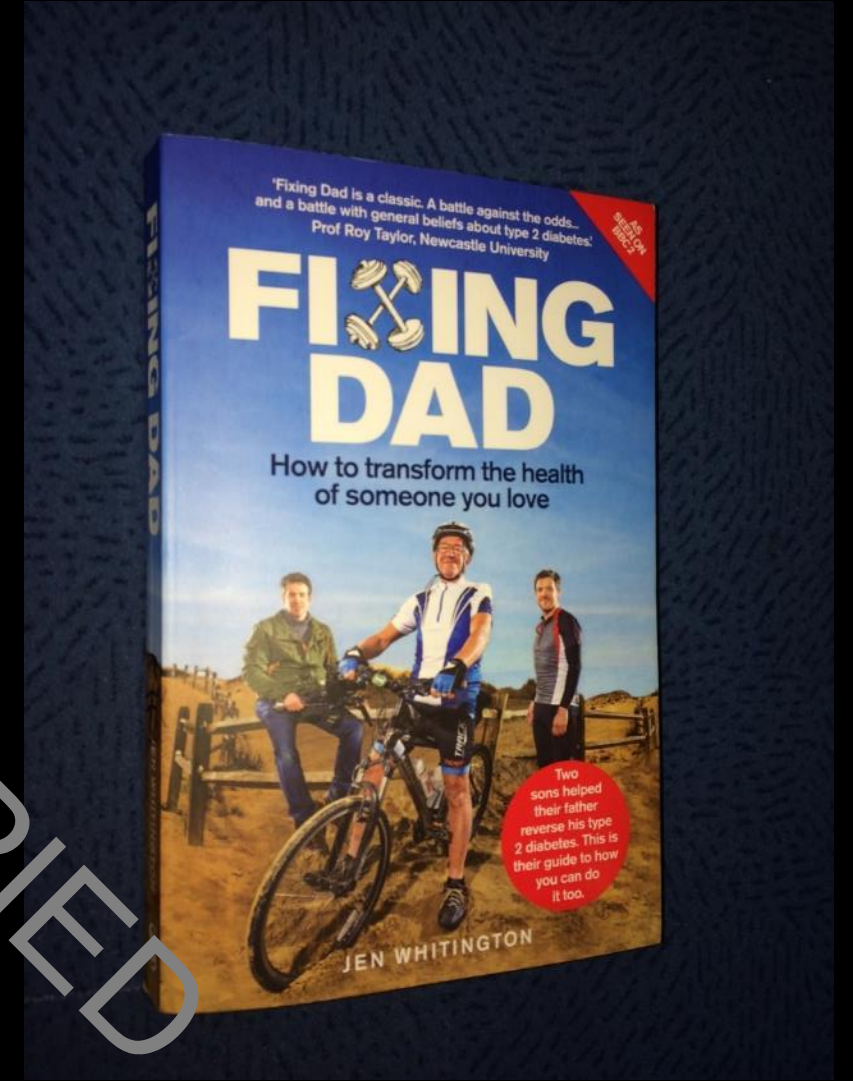
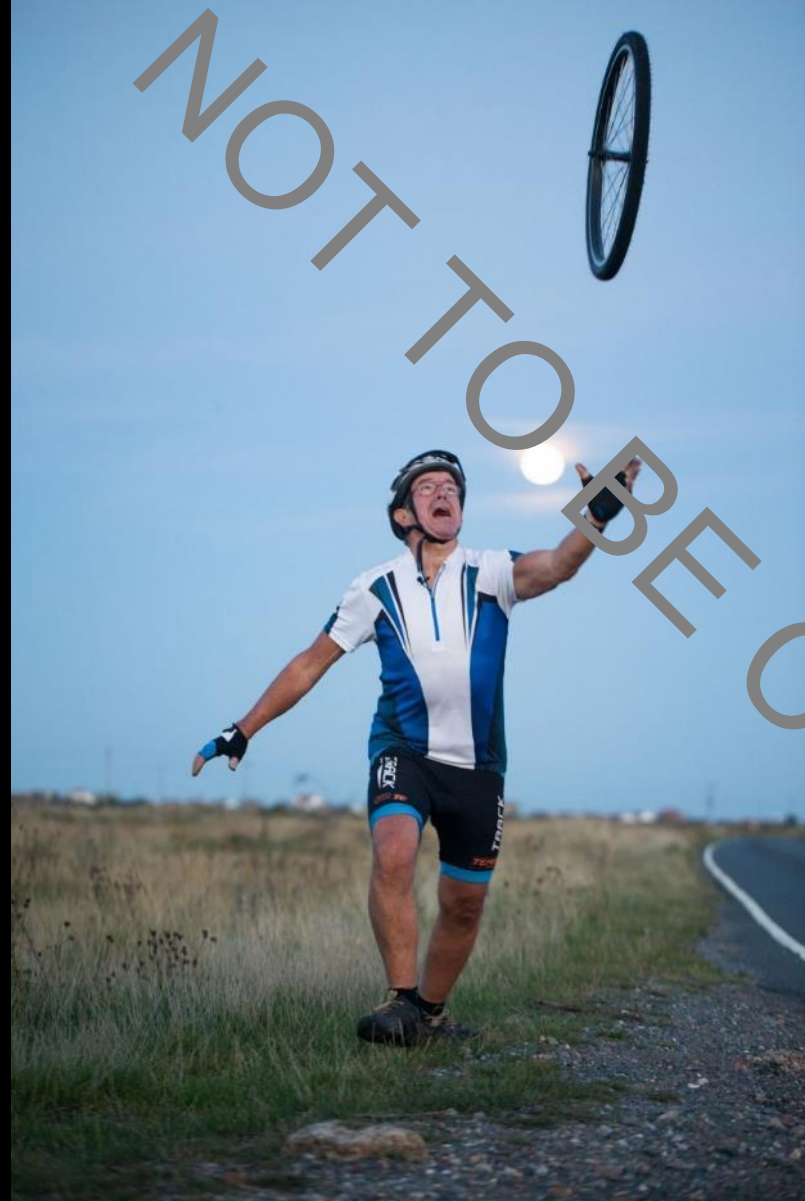
HbA1c 6.2%



2017

Weight 83kg

HbA1c 5.7%



Sources of practical information

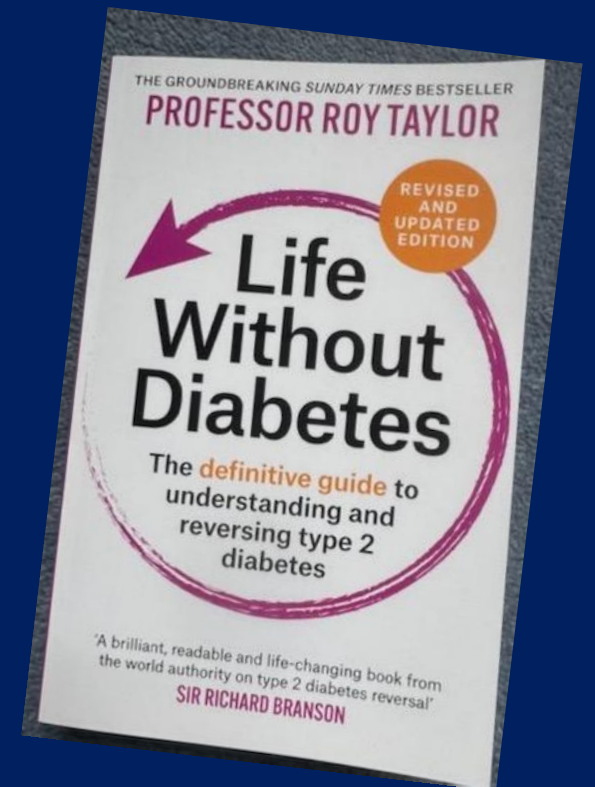
Primary Care Toolkit for T2D Remission:



<https://diabetesonthenet.com/diabetes-primary-care/t2dm-remission-toolkit/>

Book for people
with diabetes
and for doctors:

All royalties to
Diabetes UK

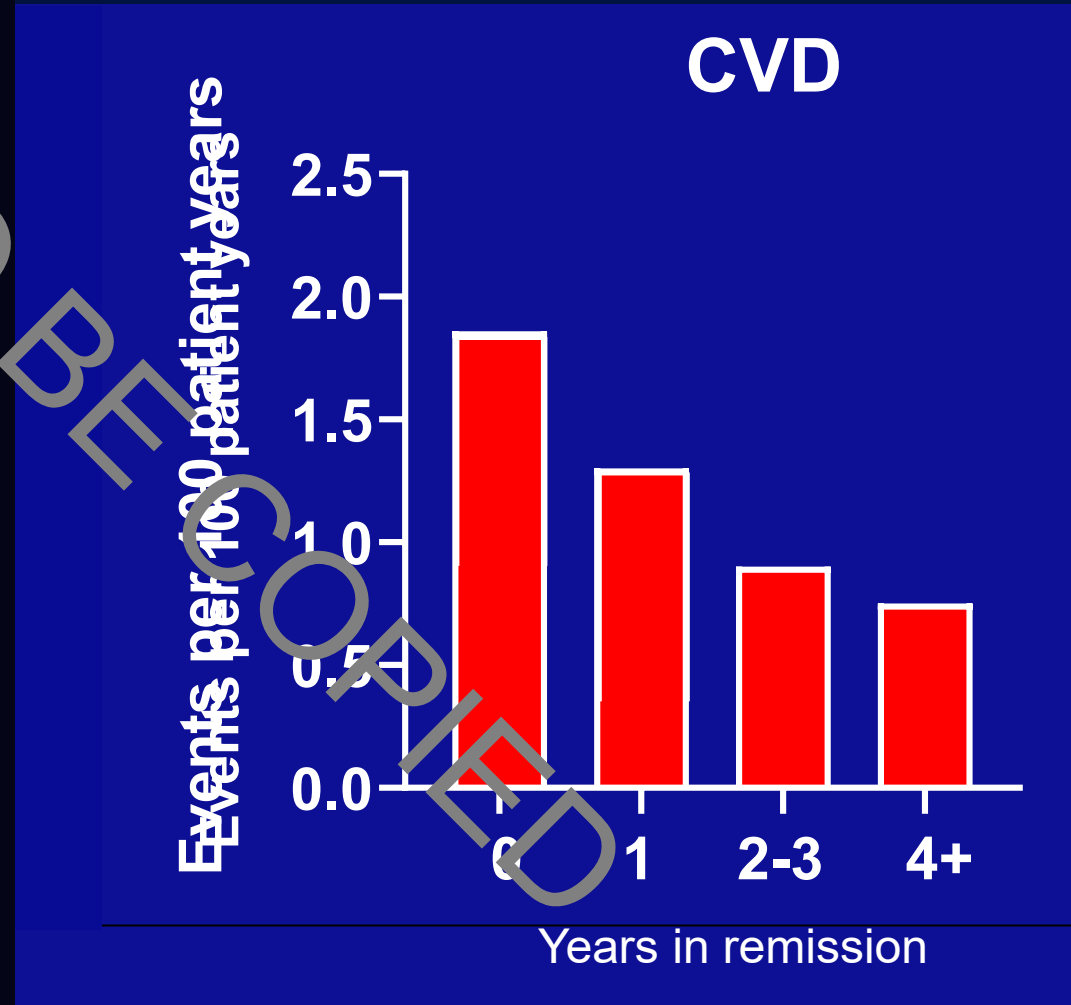


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Achieving major weight loss and remission of type 2 diabetes is feasible and hugely beneficial in everyday clinical practice

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Effect of remission duration - 12 year follow up data from Look Ahead



Effect of pre-surgery weight loss on complications following hip and knee arthroplasty (n=9,454)

