Supplementary table 1: Analysis of outcomes at follow-up stratified by glucose group and treatment assignment.

Normal Glucose	**Control (n=36)**			**Exercise (n=35)**			
	Baseline	**Follow-up**	**Change**	**Baseline**	**Follow-up**	**Change**	**P**
Primary outcome: HS (%)	5.4 ± 8.9	4.5 ± 5.1	-1.0 ± 8.2	4.8 ± 8.5	4.1 ± 5.5	-0.8 ± 3.6	0.88
BMI (kg/m^2)	30.5 ± 4.1	30.0 ± 4.3	-0.5 ± 1.6	31.8 ± 5.1	31.7 ± 5.3	-0.1 ± 0.8	0.29
Weight (kg)	88.7 ± 17.0	87.3 ± 17.1	-1.4 ± 4.9	92.1 ± 17.9	91.7 ± 18.4	-0.4 ± 2.4	0.30
FPG (mmol/L)	4.4 ± 0.5	4.5 ± 0.5	0.1 ± 0.5	4.4 ± 0.4	4.4 ± 0.4	0 ± 0.5	0.28
HbA1c (%)	5.2 ± 0.3	5.2 ± 0.3	0 ± 0.2	5.2 ± 0.3	5.2 ± 0.4	0 ± 0.2	0.60
Fructosamine (µmol/L)	255.4 ± 24.7	253.2 ± 18.3	-2.2 ± 21.6	247.0 ± 23.7	251.3 ± 22.6	4.2 ± 26.2	0.81
Insulin (pmol/L)	45.4 ± 15.8	51.6 ± 21.8*	6.2 ± 16.1	54.4 ± 23.4	55.9 ± 26.9	1.6 ± 19.8	0.46
HOMA-IR	1.5 ± 0.6	1.8 ± 0.9*	0.3 ± 0.6	1.8 ± 0.8	1.9 ± 1.1	0.1 ± 0.8	0.30
ALT (U/L)	25.6 ± 12.4	25.9 ± 13.1	0.3 ± 9.7	26.4 ± 12.1	25.2 ± 11	-1.1 ± 8	0.53
AST (U/L)	24.3 ± 8.2	23.1 ± 5.5	-1.2 ± 6.3	24.5 ± 10.7	23.2 ± 7.2	-1.3 ± 6.5	0.98
GGT (U/L)	28.6 ± 20.6	27.1 ± 18.2	-1.5 ± 10.5	22.6 ± 8.8	20.7 ± 8	-1.9 ± 5.8	0.33
Cholesterol (mmol/L)	5.5 ± 1.2	5.3 ± 1.1	-0.1 ± 0.8	5.4 ± 1.2	5.2 ± 1	-0.2 ± 0.7	0.76
Triglycerides (mmol/L)	1.2 ± 0.4	1.1 ± 0.4	0 ± 0.4	1.3 ± 0.5	1.3 ± 0.5	-0.1 ± 0.4	0.49
LDLc (mmol/L)	3.3 ± 1.0	3.2 ± 1.0	-0.1 ± 0.6	3.3 ± 1	3.1 ± 0.9	-0.2 ± 0.5	0.85
HDLc (mmol/L)	1.6 ± 0.4	1.7 ± 0.4	0 ± 0.2	1.5 ± 0.3	1.5 ± 0.3	0 ± 0.2	0.62
Systolic BP (mmHg)	128 ± 15.	130 ± 18	1 ± 8	132 ± 19	131 ± 15	-1 ± 13	0.51
Diastolic BP (mmHg)	77 ± 7	78 ± 8	1 ± 6	77 ± 11	78 ± 8	1 ± 9	0.95
ASCVD 10-Year Risk (%)	7.9 ± 9.1	8.1 ± 9.9	0.2 ± 1.7	7.8 ± 10	7.7 ± 10.8	-0.1 ± 1.7	0.45
1-RM Leg Press (N)	1964 ± 546	1963 ± 515	-1 ± 235	1911 ± 633	2387 ± 711*	476 ± 338	<0.001
1-RM Seated Row (N)	470 ± 153	471 ± 157	1 ± 44	445 ± 148	588 ± 197*	142 ± 105	<0.001
1-RM Chest press (N)	346 ± 131	342 ± 130	-4 ± 29	356 ± 147	431 ± 172*	74 ± 60	<0.001
VO_2Peak (mL/kg/min)	33.1 ± 7.9	33.7 ± 7.6	0.6 ± 6.9	33.2 ± 9.9	35.7 ± 9.1*	2.5 ± 7	0.19
Body Fat (%)	38.4 ± 8.7	39.7 ± 10.5	1.3 ± 8.4	39.5 ± 9.2	40.9 ± 11.1	1.3 ± 7.6	0.91
Lean Mass (kg)	5.1 ± 1.0	5.0± 1.1	-0.5 ± 2.3	5.2 ± 1.1	5.3 ± 1.1	0.9 ± 1.8	0.34

HS: Hepatic steatosis. Data are mean (SD). P value obtained with analysis of covariance adjusted for baseline scores. *P<0.05 within group.

Prediabetes	**Control (n=26)**			**Exercise (n=25)**			
	Baseline	**Follow-up**	**Change**	**Baseline**	**Follow-up**	**Change**	**P**
Primary outcome: HS (%)	9.0 ± 12.2	10.7 ± 16.4	1.7 ± 5.7	13.7 ± 11.6	12.6 ± 11.6	-1.2 ± 4.4	0.019
BMI (kg/m^2)	31.9 ± 5.4	32.1 ± 5.6	0.3 ± 1.2	31.3 ± 4.1	31.2 ± 4.1	-0.2 ± 0.5	0.11
Weight (kg)	89.9 ± 15.7	90.7 ± 16.7	0.7 ± 3.2	88.3 ± 15.8	87.8 ± 15.6	-0.5 ± 1.6	0.099
FPG (mmol/L)	5.1 ± 0.7	5.2 ± 0.7	0.1 ± 0.6	5.1 ± 0.6	5.0 ± 0.5	-0.1 ± 0.5	0.29
HbA1c (%)	5.7 ± 0.4	5.6 ± 0.4	0 ± 0.2	5.7 ± 0.3	5.6 ± 0.4	0 ± 0.2	0.94
Fructosamine (µmol/L)	259.8 ± 40.1	268.9 ± 28.6	9.0 ± 32.4	271.8 ± 21.3	272 ± 22.1	0.2 ± 16.7	0.64
Insulin (pmol/L)	69.7 ± 39.3	65.9 ± 39.1	-3.8 ± 23.9	68.6 ± 45.3	66.0 ± 38.6	-2.6 ± 19.4	0.86
HOMA-IR	2.7 ± 1.6	2.6 ± 2	0 ± 1.2	2.7 ± 2.1	2.5 ± 1.7	-0.2 ± 1	0.64
ALT (U/L)	32.3 ± 21.8	37 ± 36.9	4.7 ± 17.9	32.4 ± 13.3	31.2 ± 11.3	-1.2 ± 8.5	0.11
AST (U/L)	25.6 ± 8.7	28.2 ± 14.6	2.6 ± 8.9	27.1 ± 7.6	25.4 ± 6.4	-1.6 ± 4.3	0.033
GGT (U/L)	29.4 ± 14.5	28.9 ± 12.8	-0.5 ± 7.6	27.8 ± 19.6	26.9 ± 15.5	-0.9 ± 8.5	0.68
Cholesterol (mmol/L)	5.5 ± 1.3	5.5 ± 1.4	0.1 ± 0.5	5.1 ± 0.9	5.0 ± 1.0	-0.1 ± 0.4	0.25
Triglycerides (mmol/L)	1.5 ± 0.8	1.6 ± 1	0.1 ± 0.7	1.3 ± 0.6	1.3 ± 0.5	0 ± 0.4	0.44
LDLc (mmol/L)	3.4 ± 1.2	3.5 ± 1.3	0 ± 0.4	3.1 ± 0.9	3.0 ± 0.9	-0.1 ± 0.4	0.28
HDLc (mmol/L)	1.3 ± 0.3	1.4 ± 0.3	0 ± 0.1	1.4 ± 0.3	1.4 ± 0.3	0 ± 0.2	0.84
Systolic BP (mmHg)	132 ± 11	134 ± 14	2 ± 16	135 ± 15	13 ± 16	-2 ± 15	0.45
Diastolic BP (mmHg)	78 ± 7	79 ± 7	2 ± 8	79 ± 6	77 ± 8	-2 ± 7	0.34
ASCVD 10-Year Risk (%)	9.5 ± 9.5	10.5 ± 11.6	1.1 ± 2.7	12.7 ± 12.3	12.5 ± 12.7	-0.2 ± 2.4	0.024
1-RM Leg Press (N)	1880 ± 438	1980 ± 633	100 ± 333	2091 ± 776	2352 ± 791*	261 ± 395	0.12
1-RM Seated Row (N)	442 ± 137	466 ± 146	24 ± 72	469 ± 181	550 ± 233*	81 ± 81	0.014
1-RM Chest press (N)	336 ± 123	345 ± 124	9 ± 35	326 ± 117	390 ± 144*	63 ± 47	<0.001
VO_2Peak (mL/kg/min)	28.2 ± 6.9	29.1 ± 6.2	0.9 ± 4.7	27.9 ± 8.4	32.1 ± 11.2*	4.2 ± 8	0.082
Body Fat (%)	41.2 ± 8.4	40.1 ± 8.5	-1.1 ± 5.7	39.3 ± 7.3	39 ± 7.6	-0.3 ± 1.6	0.65
Lean Mass (kg)	4.9 ± 0.8	4.7 ± 0.9	-0.2 ± 1.1	5.1 ± 1.1	5.2 ± 1.1	0.1 ± 1.3	0.36

Table S1 Continued. HS: Hepatic steatosis. Data are mean (SD). P value obtained with analysis of covariance adjusted for baseline scores.

*P<0.05 within group.

T2DM	**Control (n=9)**			**Exercise (n=13)**			
	Baseline	**Follow-up**	**Change**	**Baseline**	**Follow-up**	**Change**	**P**
Primary outcome: HS (%)	25.9 ± 12.8	25.5 ± 10.9	-0.5 ± 5.8	19.7 ± 14.8	16.5 ± 12.5	-3.2 ± 8.2	0.13
BMI (kg/m^2)	35.3 ± 9.2	34.9 ± 8.7	-0.4 ± 0.6	33.4 ± 4.6	33.0 ± 4.7	-0.4 ± 0.9	0.87
Weight (kg)	96.0 ± 24.3	94.9 ± 23.3	-1.0 ± 1.4	93.0 ± 15.2	92.0 ± 15.7	-1.0 ± 2.6	0.98
FPG (mmol/L)	7.0 ± 1.6	7.6 ± 1.2	0.6 ± 2.3	7.0 ± 2.2	6.4 ± 1.9	-0.6 ± 1.1	0.072
HbA1c (%)	7.2 ± 1.1	7.4 ± 1.4	0.1 ± 1.1	6.6 ± 0.8	6.6 ± 0.7	-0.1 ± 0.3	0.37
Fructosamine (µmol/L)	306 ± 28	316.1 ± 63.1	10.1 ± 43.1	277.9 ± 54.2	284.5 ± 38.1	6.5 ± 40.6	0.49
Insulin (pmol/L)	86.4 ± 43.4	172.6 ± 159	86.1 ± 166.1	127.2 ± 145.3	95.8 ± 57.9	-31.4 ± 104.1	0.076
HOMA-IR	4.5 ± 2.5	9.6 ± 8.1	5.1 ± 8.2	6.8 ± 8.2	4.6 ± 3.2	-2.2 ± 6.7	0.035
ALT (U/L)	48.9 ± 45.8	55.9 ± 45.5	7.0 ± 10.9	37.5 ± 17.3	31.5 ± 13.6	-6.1 ± 14.1	0.018
AST (U/L)	32.6 ± 14.0	37.4 ± 17.3	4.9 ± 7.5	28.3 ± 10.6	25.2 ± 7.7	-3.1 ± 8.5	0.022
GGT (U/L)	49 ± 39.2	48.8 ± 38.4	-0.2 ± 7.3	32.9 ± 27.1	28.7 ± 22.3*	-4.2 ± 6.0	0.044
Cholesterol (mmol/L)	4.3 ± 0.9	4.0 ± 1.4	-0.3 ± 1.8	4.7 ± 0.7	4.2 ± 0.8*	-0.4 ± 0.5	0.74
Triglycerides (mmol/L)	1.9 ± 0.5	2.4 ± 1.5	0.4 ± 1.3	2.1 ± 0.9	1.8 ± 0.8*	-0.3 ± 0.2	0.068
LDLc (mmol/L)	2.2 ± 1.0	2.4 ± 1	0.2 ± 0.4	2.4 ± 0.7	2.1 ± 0.8	-0.3 ± 0.5	0.033
HDLc (mmol/L)	1.2 ± 0.3	1.3 ± 0.3	0 ± 0.2	1.3 ± 0.3	1.3 ± 0.4	0 ± 0.2	0.97
Systolic BP (mmHg)	144 ± 20	141 ± 16	-2 ± 11	134 ± 17	133 ± 17	0 ± 9	0.97
Diastolic BP (mmHg)	83 ± 12	79 ± 8	-4 ± 8	80 ± 9	79 ± 7	-1 ± 5	0.47
ASCVD 10-Year Risk (%)	10 ± 11.6	10.2 ± 12.1	0.1 ± 1.9	9.9 ± 9.3	9.2 ± 8.3	-0.6 ± 2.1	0.38
1-RM Leg Press (N)	2167 ± 744	2094 ± 952	-72 ± 559	1835 ± 478	2077 ± 822	241 ± 413	0.072
1-RM Seated Row (N)	501 ± 164	482 ± 214	-17 ± 74	386 ± 144	485 ± 194*	98 ± 91	0.001
1-RM Chest press (N)	373 ± 102	341 ± 119*	-32 ± 38	282 ± 108	337 ± 146*	55 ± 58	<0.001
VO_2Peak (mL/kg/min)	28.5 ± 8.7	30.1 ± 10	1.7 ± 7.9	26.5 ± 8.6	27.8 ± 7.8	1.3 ± 6.6	0.73
Body Fat (%)	41.1 ± 9.3	40.8 ± 8.7	-0.3 ± 1.3	42.5 ± 6.6	42.1 ± 6.9	-0.4 ± 2.3	0.96
Lean Mass (kg)	5.6 ± 1.0	5.1 ± 1.1.5	-0.5 ± 1.9	5.1 ± 0.8	5.2 ± 0.9	-0.1 ± 2.1	0.764

Table S1 Continued. HS: Hepatic steatosis. Data are mean (SD). P value obtained with analysis of covariance adjusted for baseline scores.

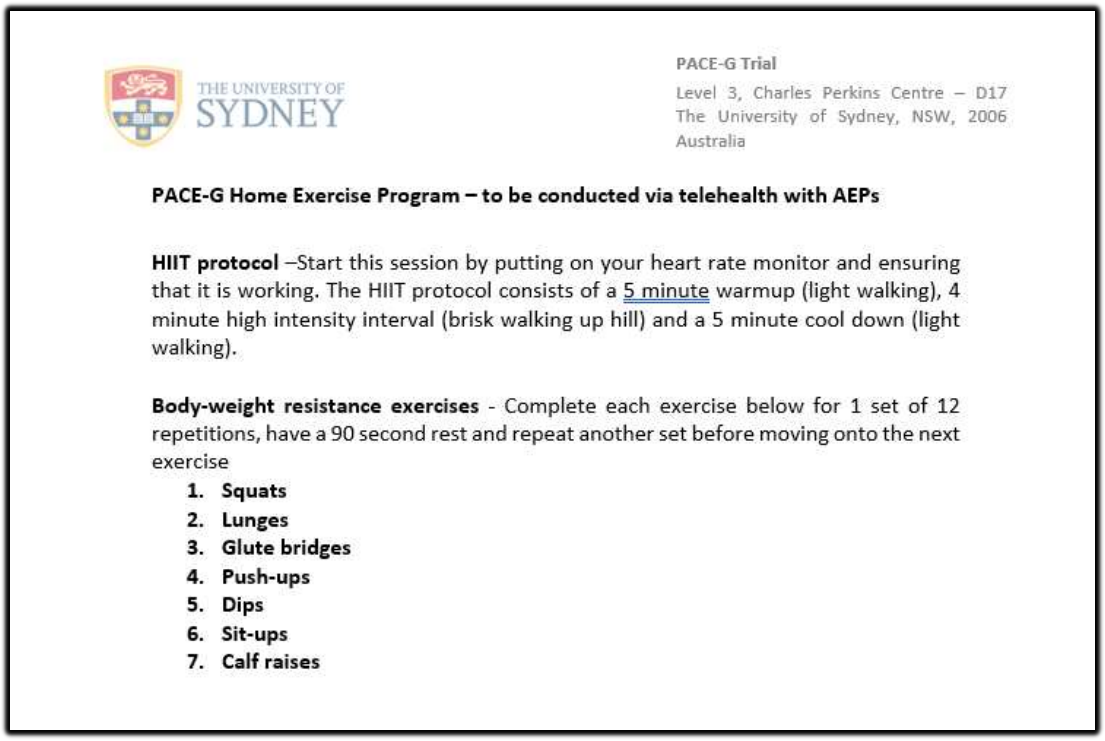
*P<0.05 within group.

Table S2: Data from sensitivity Analysis - Pearson's correlation between change in hepatic steatosis, predicted 10-year ASCVD risk, blood triglycerides, cholesterol, VO_2Peak and bodyweight.

	Δ Hepatic Steatosis	**Δ 10-year predicted ASCVD risk**	**Δ Triglycerides**	**Δ VO_2Peak**	**Δ body weight**
Δ Cholesterol	r=0.09	r=0.3	r=0.01	r=-0.06	r=0.21
	p=0.26	p=<0.001	p=0.95	p=0.44	p=0.01
Δ Liver Fat		r=0.16	r=0	r=-0.03	r=0.33
		p=0.050	p=0.99	p=0.67	p=<0.001
Δ 10-year predicted ASCVD risk			r=-0.02	r=-0.19	r=0.28
			p=0.85	p=0.02	p=<0.001
Δ Triglycerides				r=-0.11	r=-0.07
				p=0.18	p=0.42
Δ VO_2Peak					r=-0.2
					p=0.02

Table S3: Machine exercise used in the progressive resistance training undertaken by participants in the exercise intervention.

Leg press
Hamstring curl
Knee extension
Chest press
Seated row
Triceps extension
Lat pull down
Hip abduction
Hip adduction



THE UNIVERSITY OF SYDNEY

PACE-G Trial
Level 3, Charles Perkins Centre – D17
The University of Sydney, NSW, 2006
Australia

PACE-G Home Exercise Program – to be conducted via telehealth with AEPs

HIIT protocol –Start this session by putting on your heart rate monitor and ensuring that it is working. The HIIT protocol consists of a 5 minute warmup (light walking), 4 minute high intensity interval (brisk walking up hill) and a 5 minute cool down (light walking).

Body-weight resistance exercises - Complete each exercise below for 1 set of 12 repetitions, have a 90 second rest and repeat another set before moving onto the next exercise

1. **Squats**
2. **Lunges**
3. **Glute bridges**
4. **Push-ups**
5. **Dips**
6. **Sit-ups**
7. **Calf raises**

Supplementary Figure 1: Home exercise program delivered via telehealth to participants in the exercise arm during COVID-19 lockdowns while the trial was paused.