Suppl. Table 1. Associations of *TCF7L2* SNP rs7903146 with changes in anthropometric and metabolic parameters during lifestyle intervention after stratification for gender.

TCF7L2	female			male		
rs7903146	CC	XT	p	CC	XT	p
n	95	99		53	62	
Δ BMI(kg/m^2)	-1.1±1.7	-0.6±1.6	**0.017**	-1.2±1.4	-0.8±1.2	0.1
Δ total body fat %	-1.4±4.6	0.1±4.2	**0.044**	-2.2±4.3	-1.4±4.2	0.5
Δ fasting glucose (mmol/l)	-0.1±0.4	0.0±0.4	0.2	-0.2±0.4	-0.1±0.4	0.2
Δ $glucose_{120\text{-}min}$ (mmol/l)	-0.1±1.6	-0.3±1.5	0.4	-0.4±1.5	-0.5±1.5	0.9
Δ $AUC_{C\text{-}Peptide}/AUC_{Glucose}$ ($x10^{-9}$)	0.6±66	8.3±69	0.9	-8.4±96	-9.8±71	0.6
Δ insulin sensitivity (AU)	1.9±6.0	0.6±6.3	0.2	2.7±6.0	3.1±6.3	0.7
Δ NVAT (kg)*	-2.3±3.6	-1.1±3.3	0.1	-3.4±3.4	-1.6±2.5	**0.0017**
Δ VAT (kg)*	-0.4±0.5	-0.2±0.4	0.09	-0.8±0.8	-0.5±0.9	**0.04**
Δ Liver fat content (% of water signal)*	-2.1±6.0	-0.3±1.6	0.4	-4.4±8.3	-2.4±5.8	0.1

Data represent means ± SD. BMI and total body fat were adjusted for age. Glucose concentration, insulin secretion and insulin sensitivity were additionally adjusted for BMI. $\Delta = T_{follow\ up} - T_{baseline}$, The change in the parameters were additionally adjusted for baseline values. The change in glucose concentration, insulin secretion and insulin sensitivity were adjusted for the change in BMI. Data were statistically analyzed by multivariate linear regression analysis in the dominant inheritance model. * MRI/MRS subcohort.

Suppl. Table 2. Associations of *TCF7L2* SNP rs7903146 with changes in anthropometric and metabolic parameters during lifestyle intervention after stratification for age

TCF7L2	Age≤47			Age>47		
rs7903146	CC	XT	p	CC	XT	p
n	78	74		70	87	
Δ BMI(kg/m^2)	-1.2±1.6	-0.8±1.6	**0.0095**	-1.2±1.7	-0.5±1.4	0.1
Δ total body fat %	-1.6±4.1	0.3±3.8	0.4	-1.9±4.8	-0.5±4.7	0.1
Δ fasting glucose (mmol/l)	-0.1±0.4	0.1±0.4	0.09	-0.2±0.4	0.0±0.5	0.5
Δ $glucose_{120\text{-}min}$ (mmol/l)	-0.4±1.8	-0.4±1.6	0.3	-0.1±1.3	-0.4±1.4	0.9
Δ $AUC_{C\text{-}Peptide}/AUC_{Glucose}$ ($x10^{-9}$)	12±78	3±70	0.4	-15±75	0±71	0.2
Δ insulin sensitivity (AU)	2.0±5.6	1.8±5.6	0.8	2.3±6.4	1.1±7.1	0.5
Δ NVAT (kg)	-2.7±2.8	-1.0±2.4	0.06	-2.7±4.1	-1.6±3.4	0.1
Δ VAT (kg)	-0.5±0.6	-0.3±0.7	**0.01**	-0.6±0.6	-0.3±0.6	0.4
Δ Liver fat content (% of water signal)*	-1.9±5.3	-1.0±3.3	0.4	-3.9±8.2	-1.4±4.8	0.2

Data represent means ± SD. BMI and total body fat were adjusted for sex. Glucose concentration, insulin secretion and insulin sensitivity were additionally adjusted for BMI. $\Delta = T_{follow\ up} - T_{baseline}$, The change in the parameters were additionally adjusted for baseline values. The change in glucose concentration, insulin secretion and insulin sensitivity were adjusted for the change in BMI. Data were statistically analyzed by multivariate linear regression analysis in the dominant inheritance model.* MRI/MRS subcohort.

Suppl. Table 3. Associations of SNP rs12255372 in *TCF7L2* with anthropometric and metabolic parameters in the cross-sectional setting and with changes in these parameters during lifestyle intervention

Genotype	GG	XT	p	p2		GG	XT	p	p2
N (f/m)	161 (103/58)	148(91/57)	-						
Age (years)	46±11	46±12	-						
BMI (kg/m^2)	30.3±5.4	29.9±5.8	0.4	0.4	Δ BMI	-1.1±1.6	-0.7±1.5	**0.0046**	**0.0126**
Total body fat (%)	33.5±8.6	32.6±8.6	0.4	0.3	Δ total body fat	-1.6±4.5	-0.5±4.2	**0.0127**	0.06
Fasting glucose (mmol/l)	5.3±0.5	5.3±0.5	0.9	0.9	Δ fasting glucose	-0.1±0.4	0.1±0.4	0.7	0.6
$glucose_{120\text{-}min}$ (mmol/l)	6.9±1.6	7.1±1.6	0.07	0.2	Δ $glucose_{120\text{-}min}$	-0.2±1.6	-0.4±1.5	0.5	0.8
$AUC_{C\text{-}Peptide}/AUC_{Glucose}$ ($x10^{-9}$)	314±96	297±87	0.1	0.09	Δ $AUC_{C\text{-}Peptide}/AUC_{Glucose}$	-3.7±76	3.0±71	0.8	0.4
Insulin sensitivity, OGTT (AU)	12.4±6.8	13.2±6.9	0.4	0.5	Δ insulin sensitivity, OGTT	2.0±6.1	1.6±6.4	0.3	0.4
Non visceral fat (kg)*	23.4±9.6	23.0±10.3	0.7	1.0	Δ Non visceral fat	-2.7±3.5	-1.3±3.0	**0.0022**	0.054
Visceral fat (kg)*	3.1±1.8	2.9±1.8	0.3	0.4	Δ Visceral fat	-0.5±0.6	-0.3±0.6	**0.0086**	**0.0142**
Liver fat content (% of water signal)*	7.7±9.6	5.4±6.2	0.2	0.2	Δ Liver fat content	-2.9±7.0	-1.1±4.0	0.4	0.7

Data represent means ± SD. BMI and total body fat were adjusted for sex and age. Glucose concentration, insulin secretion and insulin sensitivity were additionally adjusted for BMI. $\Delta=T_{follow\ up}- T_{baseline}$, The change in the parameters were additionally adjusted for baseline values. The change in glucose concentration, insulin secretion and insulin sensitivity were adjusted for the change in BMI. Data were statistically analyzed by multivariate linear regression analysis in the dominant inheritance model, p1, and the additive inheritance model, p2. * MRI/MRS subcohort.

Suppl. Table 4. Associations of SNP rs7895340 in *TCF7L2* with anthropometric and metabolic parameters in the cross-sectional setting and with changes in these parameters during lifestyle intervention

Genotype	AA	XG	p	p2		AA	XG	p	p2
N (f/m)	88(54/34)	217(137/80)							
Age (years)	44±11	47±11							
BMI (kg/m^2)	30.2±5.3	30.1±5.7	1.0	0.9	Δ BMI	-1.0±1.6	-0.9±1.6	0.9	1.0
Total body fat (%)	33.6±8.3	32.9±8.7	0.4	0.3	Δ total body fat	-1.3±4.2	-1.0±4.5	0.9	0.8
Fasting glucose (mmol/l)	5.2±0.5	5.3±0.5	0.9	1.0	Δ fasting glucose	-0.1±0.4	-0.1±0.4	0.4	0.4
$glucose_{120\text{-}min}$ (mmol/l)	7.0±1.6	7.0±1.6	0.5	0.2	Δ $glucose_{120\text{-}min}$	-0.4±1.5	-0.3±1.6	0.6	0.7
$AUC_{C\text{-}Peptide}/AUC_{Glucose}$ ($x10^{-9}$)	310±87	304±94	0.6	0.3	Δ $AUC_{C\text{-}Peptide}/AUC_{Glucose}$	-10±73	-4.5±71	0.06	0.2
Insulin sensitivity, OGTT (AU)	11.9±6.8	13.1±6.9	0.2	0.8	Δ insulin sensitivity, OGTT	1.7±6.2	1.9±6.3	0.4	0.7
Non visceral fat (kg)*	23.4±10.0	23.0±10.0	0.9	0.8	Δ Non visceral fat	-2.1±3.2	-1.9±3.4	0.8	0.9
Visceral fat (kg)*	3.1±1.9	2.9±1.8	0.4	0.2	Δ Visceral fat	-0.5±0.6	-0.4±0.6	0.9	1.0
Liver fat content (% of water signal)*	6.9±9.6	5.2±5.7	0.3	0.1	Δ Liver fat content	-2.4±5.4	-1.9±6.0	0.8	0.6

Data represent means ± SD. BMI and total body fat were adjusted for sex and age. Glucose concentration, insulin secretion and insulin sensitivity were additionally adjusted for BMI. $\Delta = T_{follow\ up} - T_{baseline}$, The change in the parameters were additionally adjusted for baseline values. The change in glucose concentration, insulin secretion and insulin sensitivity were adjusted for the change in BMI. Data were statistically analyzed by multivariate linear regression analysis in the dominant inheritance model, p1, and the additive inheritance model, p2. * MRI/MRS subcohort.

Suppl. Table 5. Associations of SNP rs11196205 in *TCF7L2* with anthropometric and metabolic parameters in the cross-sectional setting and with changes in these parameters during lifestyle intervention

Genotype	CC	XG	p	p2		CC	XG	p	p2
N (f/m)	82	223							
Age (years)	45±11	46±11							
BMI (kg/m^2)	30.3±5.5	30.1±5.7	0.8	0.9	Δ BMI	-1.0±1.6	-0.9±1.6	0.5	0.8
Total body fat (%)	33.6±8.2	32.9±8.7	0.3	0.4	Δ total body fat	-1.3±4.5	-0.9±4.2	0.9	0.8
Fasting glucose (mmol/l)	5.3±0.5	5.3±0.5	0.9	1.0	Δ fasting glucose	-0.1±0.4	0.1±0.4	0.6	0.6
$glucose_{120\text{-}min}$ (mmol/l)	7.0±1.5	7.0±1.6	0.5	0.1	Δ $glucose_{120\text{-}min}$	-0.4±1.6	-0.3±1.6	0.5	0.5
$AUC_{C\text{-}Peptide}/AUC_{Glucose}$ ($x10^{-9}$)	311±89	304±93	0.6	0.8	Δ $AUC_{C\text{-}Peptide}/AUC_{Glucose}$	9.1±76	-3.8±73	0.09	0.2
Insulin sensitivity, OGTT (AU)	11.6±6.6	13.1±7.0	0.06	0.07	Δ insulin sensitivity, OGTT	1.9±6.1	1.7±6.3	0.6	0.9
Non visceral fat (kg)*	23.4±10.2	23.1±9.9	0.9	0.9	Δ Non visceral fat	-2.3±3.2	-1.9±3.4	0.6	0.9
Visceral fat (kg)*	3.2±1.9	2.9±1.8	0.1	0.3	Δ Visceral fat	-0.5±0.7	-0.4±0.6	0.9	1.0
Liver fat content (% of water signal)*	7.1±7.6	5.2±6.2	0.1	0.3	Δ Liver fat content	-2.6±5.6	-1.9±5.9	0.9	0.8

Data represent means ± SD. BMI and total body fat were adjusted for sex and age. Glucose concentration, insulin secretion and insulin sensitivity were additionally adjusted for BMI. $\Delta=T_{follow\ up}- T_{baseline}$, The change in the parameters were additionally adjusted for baseline values. The change in glucose concentration, insulin secretion and insulin sensitivity were adjusted for the change in BMI. Data were statistically analyzed by multivariate linear regression analysis in the dominant inheritance model, p1, and the additive inheritance model, p2. * MRI/MRS subcohort.