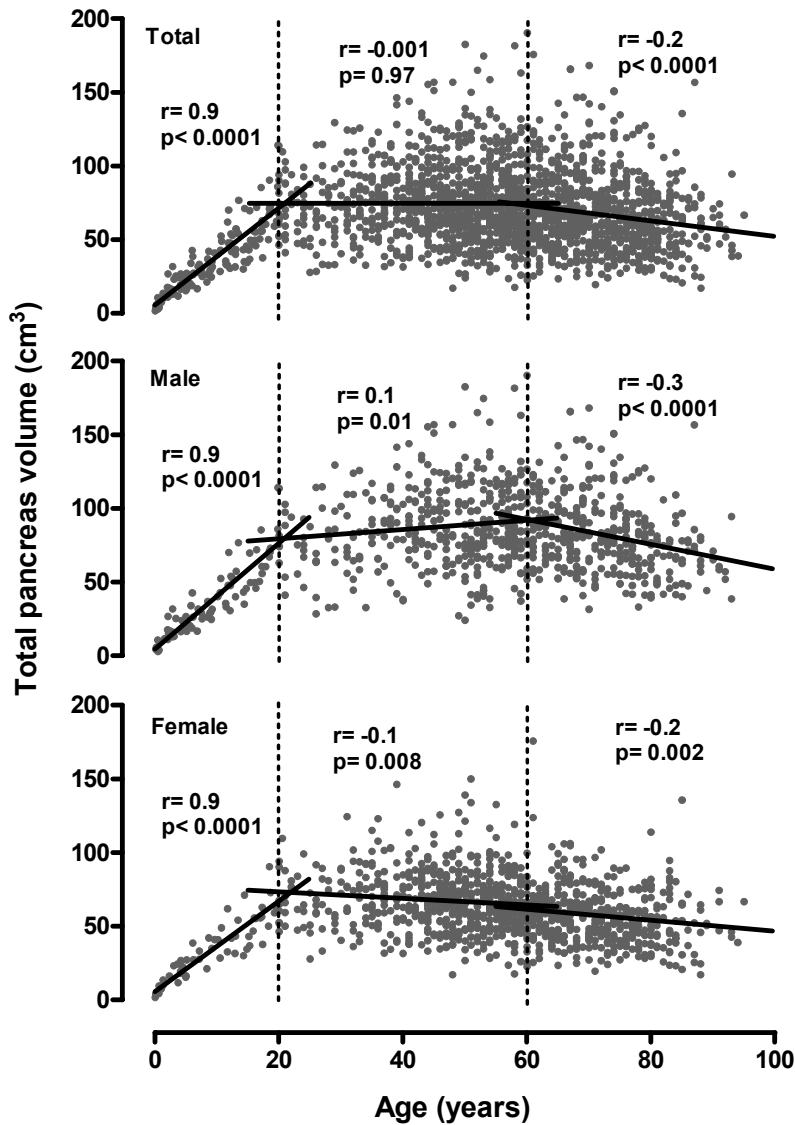
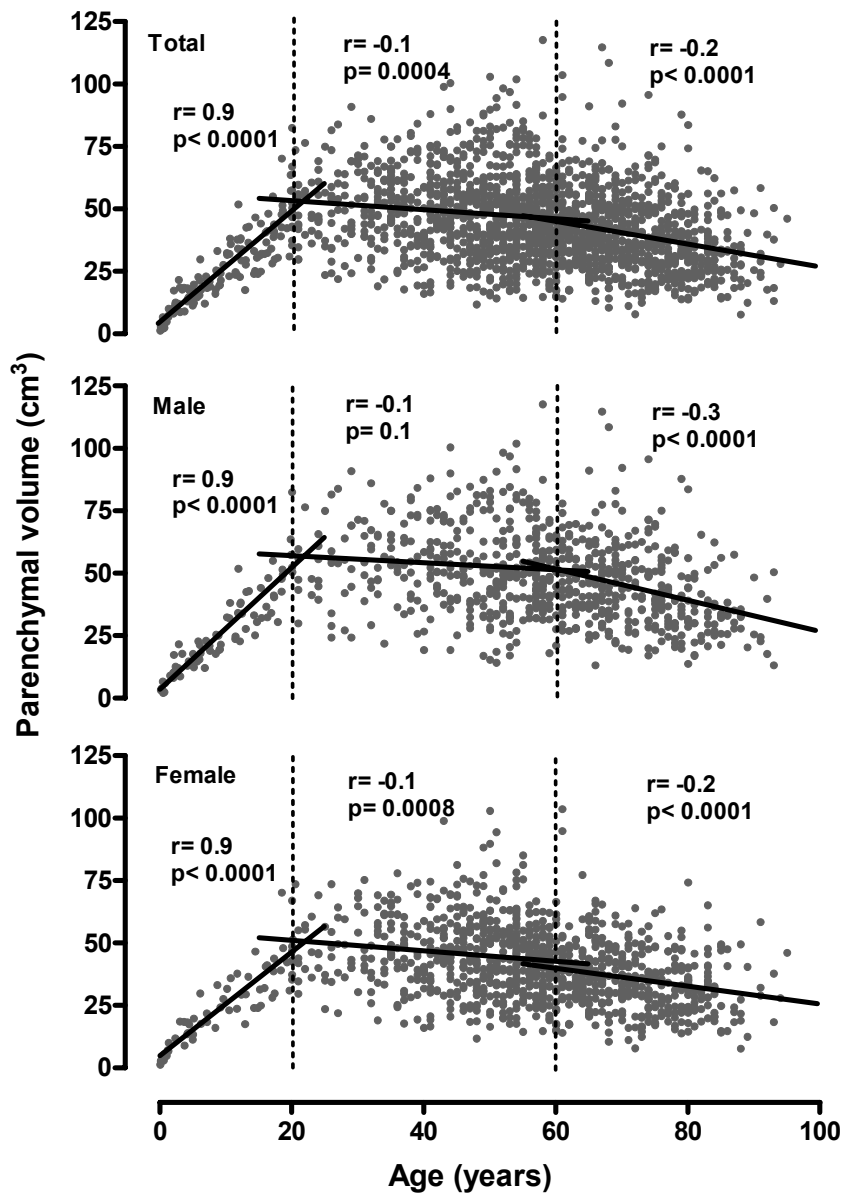


Appendix for Online Publication



Supplementary Figure 1. Distribution of total pancreas volume from birth to age 100 years. There is a strong correlation between age and total pancreas volume from birth to age 20 years (y (volume; cm^3) = $5.5 + 3.31x$ (age; years), $y = 4.5 + 3.60x$, and $y = 6.2 + 3.06x$ in total, male, and female groups, respectively). There is a negative correlation between age and total pancreas volume after age 60 years ($y = 106.0 - 0.53x$, $y = 143.4 - 0.85x$, and $y = 83.1 - 0.37x$ in total, male, and female groups, respectively). There is no marked correlation between age and total pancreas volume from age 20 to 60 years.



Supplementary Figure 2. Distribution of parenchymal volume from birth to age 100 years. There is a strong correlation between age and parenchymal volume from birth to age 20 years (y (volume; cm^3) = $4.3 + 2.25x$ (age; years), $y = 3.4 + 2.44x$, and $y = 4.9 + 2.08x$ in total, male, and female groups, respectively). There is a negative correlation between age and parenchymal volume after age 60 years ($y = 71.7 - 0.45x$, $y = 88.7 - 0.62x$, and $y = 60.4 - 0.35x$ in total, male, and female groups, respectively). There is significant, but weak negative correlation between age and parenchymal volume from age 20 to 60 years.

Supplementary Table 1. Growth of Pancreas in Childhood and Adolescence

Age (years)	n	Pancreas volume (cm ³)			Fat/ Parenchyma ratio
		Total	Parenchyma	Fat	
Total subjects	135				
0 - 2.5	30	8.9 ± 5.7	6.0 ± 3.9	2.9 ± 2.0	0.49 ± 0.20
2.5 - 5	16	20.1 ± 5.7 **	14.5 ± 3.9 **	5.6 ± 2.2	0.39 ± 0.11
5 - 10	27	28.7 ± 7.6 *	20.3 ± 5.1 *	8.4 ± 4.0	0.42 ± 0.17
10 - 15	29	45.7 ± 12.8 **	32.1 ± 8.0 **	13.6 ± 6.1 **	0.42 ± 0.14
15 - 20	33	64.1 ± 18.0 **	43.1 ± 11.8 **	21.0 ± 9.3 **	0.50 ± 0.21
Male	77				
0 - 2.5	18	9.7 ± 6.4	6.5 ± 4.3	3.2 ± 2.3	0.51 ± 0.18
2.5 - 5	8	19.9 ± 6.6 *	13.9 ± 4.3 *	6.0 ± 2.6	0.43 ± 0.12
5 - 10	17	27.4 ± 7.0	19.2 ± 4.0	8.3 ± 4.2	0.43 ± 0.18
10 - 15	17	47.4 ± 12.5 **	33.6 ± 7.8 **	13.8 ± 6.2 **	0.41 ± 0.13
15 - 20	17	68.0 ± 16.9 **	44.5 ± 9.6 **	23.5 ± 10.0 **	0.53 ± 0.19
Female	58				
0 - 2.5	12	7.6 ± 4.3	5.3 ± 3.2	2.3 ± 1.4	0.46 ± 0.23
2.5 - 5	8	20.2 ± 5.0 *	15.1 ± 3.7 *	5.2 ± 1.7	0.34 ± 0.08
5 - 10	10	31.0 ± 8.5	22.2 ± 6.4	8.8 ± 3.6	0.41 ± 0.18
10 - 15	12	43.3 ± 13.5 *	30.0 ± 8.2 *	13.3 ± 6.2	0.44 ± 0.16
15 - 20	16	60.0 ± 18.7 **	41.6 ± 13.9 **	18.4 ± 7.9 *	0.46 ± 0.23

Values are means ± SD. * p< 0.05, ** p< 0.01 vs. younger population.

Supplementary Table 2. Effects of Age on Pancreas Volume in Adulthood

Age (years)	n	BMI (kg/m ²)			Pancreas volume (cm ³)									Fat/ Parenchyma ratio							
					Total			Parenchyma			Fat										
Total subjects	1721																				
20 - 29	80	24.0	±	5.0	69.8	±	21.4	49.6	±	14.9	20.2	±	11.4	0.42	±	0.26					
30 - 39	142	25.4	±	5.1	*	77.6	±	23.5	*	51.5	±	15.3	26.1	±	14.0	**	0.54	±	0.31	*	
40 - 49	282	25.9	±	5.4	**	77.8	±	25.0	*	49.5	±	16.5	28.3	±	15.1	**	0.62	±	0.35	**	
50 - 59	430	25.6	±	4.5	**	75.0	±	26.4		47.3	±	16.6	¶	27.8	±	15.4	**	0.63	±	0.36	**§
60 - 69	364	26.0	±	5.0	**	72.4	±	26.2	§†	42.7	±	15.5	**¶	29.7	±	16.2	**§	0.74	±	0.41	**¶†
70 - 79	277	25.0	±	4.5	†	67.0	±	26.2	¶	38.2	±	14.7	**¶	28.8	±	17.2	**	0.82	±	0.55	**¶
80 - 89	131	24.0	±	3.9	§	60.6	±	23.1	**¶	33.1	±	12.8	**¶	27.5	±	16.3	**	0.91	±	0.61	**¶
90-	15	22.9	±	3.6	†	58.7	±	15.2	¶	32.8	±	13.5	**¶	25.9	±	11.3		0.98	±	0.63	**¶
Male	724																				
20 - 29	37	24.5	±	4.4		75.8	±	24.7		53.9	±	17.2		21.9	±	12.5		0.42	±	0.24	
30 - 39	57	27.0	±	4.3	**	85.8	±	23.5		56.4	±	14.9		29.4	±	14.2	*	0.54	±	0.28	
40 - 49	99	26.9	±	4.2	**	93.5	±	26.9	**	54.9	±	17.5		38.5	±	17.5	**¶	0.76	±	0.39	**¶
50 - 59	179	26.0	±	3.9	*	88.2	±	28.6	**	51.6	±	18.0		36.6	±	16.8	**¶	0.76	±	0.35	**¶
60 - 69	163	26.9	±	4.7	**	87.0	±	25.2	*	47.8	±	16.2	¶†	39.2	±	16.1	**¶	0.90	±	0.42	**¶
70 - 79	123	25.3	±	3.6	¶†	83.1	±	27.4	†	43.8	±	15.9	**¶	39.3	±	18.7	**¶	0.98	±	0.53	**¶
80 - 89	58	24.2	±	3.4	¶	70.1	±	21.3	¶	35.6	±	13.1	**¶	34.5	±	15.7	**	1.09	±	0.65	**¶
90-	8	22.4	±	1.6	¶	62.2	±	16.2	§	30.3	±	14.1	**¶	31.9	±	9.2		1.28	±	0.62	**¶
Female	997																				
20 - 29	43	23.5	±	5.4		64.6	±	16.6		45.9	±	11.6		18.7	±	10.3		0.43	±	0.27	
30 - 39	85	24.3	±	5.3		72.1	±	22.0	*	48.3	±	14.7		23.8	±	13.5		0.53	±	0.33	
40 - 49	183	25.4	±	5.9		69.4	±	19.3		46.6	±	15.3		22.8	±	10.0		0.54	±	0.30	
50 - 59	251	25.4	±	4.8		65.6	±	20.0	¶	44.2	±	14.8	§	21.5	±	10.5		0.53	±	0.33	
60 - 69	201	25.2	±	5.1		60.5	±	20.5	¶	38.6	±	13.7	**¶	21.9	±	11.5		0.61	±	0.34	**
70 - 79	154	24.8	±	5.1		54.1	±	16.4	**¶	33.7	±	12.0	**¶	20.4	±	9.7		0.70	±	0.53	**¶
80 - 89	73	23.9	±	4.3		53.0	±	21.7	**¶	31.1	±	12.3	**¶	22.0	±	14.6		0.77	±	0.54	**¶
90-	7	23.5	±	5.2		54.7	±	14.1	§	35.7	±	13.2	§†	19.0	±	9.9		0.63	±	0.47	
Values are means ± SD.																					
* p < 0.05, ** p < 0.01 vs. age 20-29.																					
§ p < 0.05, ¶ p < 0.01 vs. age 30-39.																					
† p < 0.05, † p < 0.01 vs. age 40-49.																					
p < 0.05, p < 0.01 vs. age 50-59.																					

Supplementary Table 3. Effects of BMI on Pancreas Volume in Adulthood

	n	Age (years)	BMI (kg/m ²)	Pancreas volume (cm ³)			Fat/ Parenchyma ratio
				Total	Parenchyma	Fat	
Total subjects	1150						
Lean	460	57 ± 14	22.1 ± 1.8	66.2 ± 22.0	43.2 ± 15.7	23.0 ± 12.4	0.59 ± 0.37
Overweight	460	57 ± 14	27.1 ± 1.4 **	76.6 ± 23.8 **	46.2 ± 16.2 **	30.4 ± 14.3 **	0.73 ± 0.45 **
Obese	230	57 ± 14	33.6 ± 3.4 **§§	87.3 ± 30.3 **§§	48.7 ± 18.0 **	38.6 ± 18.9 **§§	0.86 ± 0.44 **§§
Male	495						
Lean	198	56 ± 15	22.5 ± 1.8	77.0 ± 22.7	47.5 ± 16.3	29.5 ± 13.5	0.68 ± 0.36
Overweight	198	56 ± 15	27.1 ± 1.4 **	89.6 ± 23.4 **	50.7 ± 17.1	38.9 ± 14.6 **	0.85 ± 0.43 **
Obese	99	56 ± 15	33.3 ± 3.3 **§§	103.8 ± 30.9 **§§	54.7 ± 19.2 **	49.1 ± 20.5 **§§	0.99 ± 0.49 **§§
Female	655						
Lean	262	58 ± 13	21.8 ± 1.7	58.1 ± 17.4	39.9 ± 14.4	18.1 ± 8.8	0.52 ± 0.35
Overweight	262	59 ± 13	27.0 ± 1.4 **	66.7 ± 18.9 **	42.8 ± 14.6 *	23.9 ± 9.9 **	0.63 ± 0.45 **
Obese	131	58 ± 14	33.9 ± 3.4 **§§	74.8 ± 23.1 **§§	44.2 ± 15.7 **	30.7 ± 12.7 **§§	0.75 ± 0.37 **§§

Values are means ± SD. * p < 0.05, ** p < 0.01 vs. lean. § p < 0.05, §§ p < 0.01 vs. overweight.