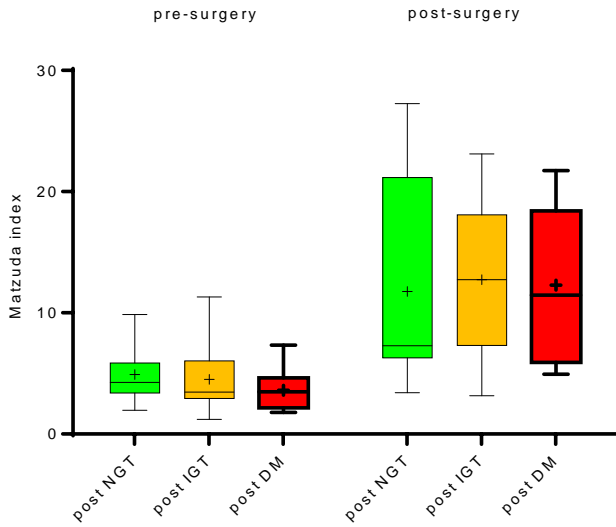
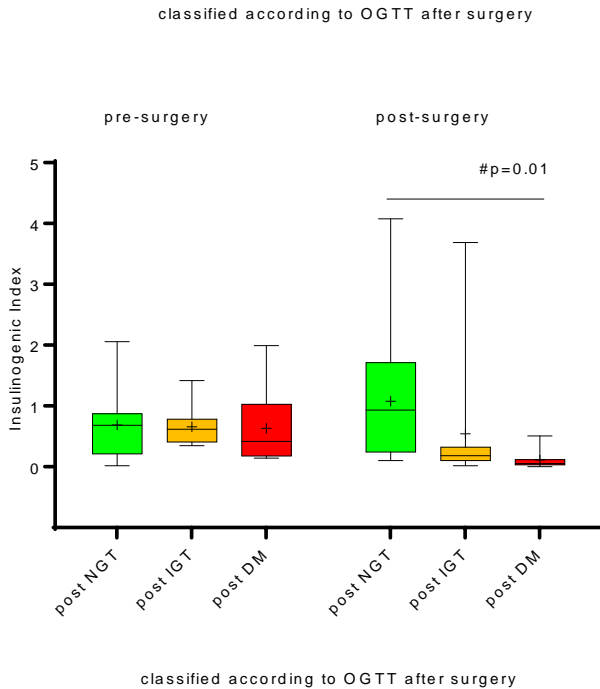


Supplementary figure 1: study design

A

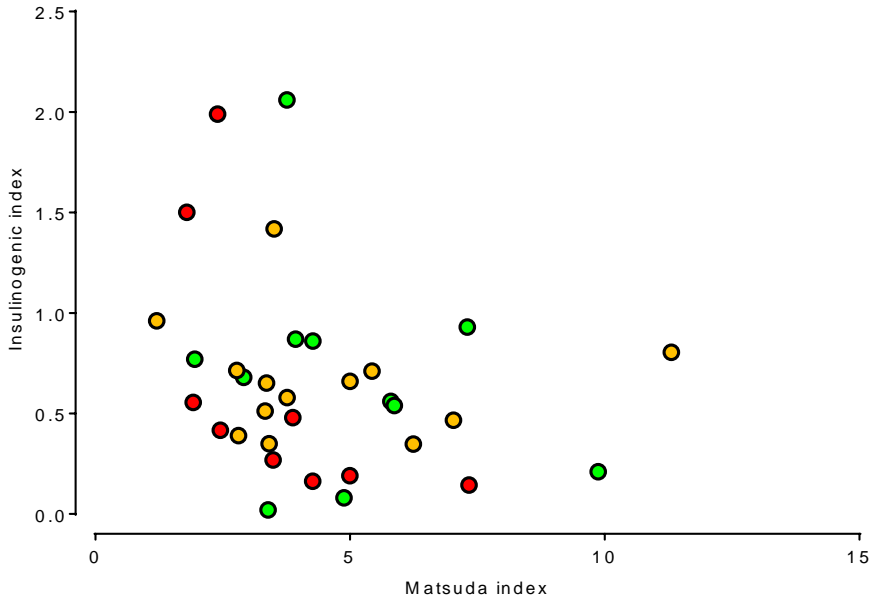


B

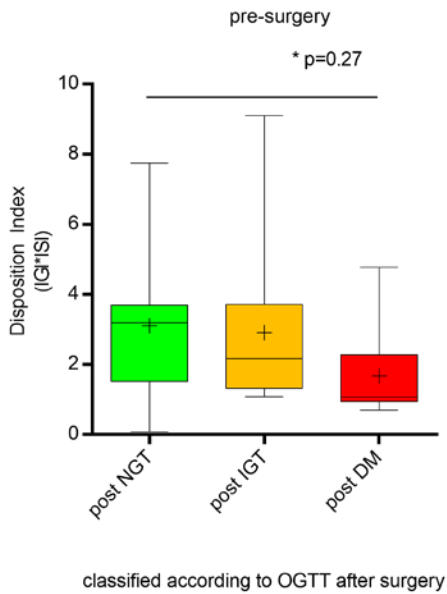


**Supplementary figure 2:** OGTT-derived matsuda index (A) and insulinogenic index (B) before and after partial pancreatectomy in normal glucose tolerant (green box), impaired glucose tolerant (orange box) and diabetic subjects (red box). The relationship between variables was derived by linear regression analysis. Variables were regressed against glucose tolerance status by using i) pre-pancreatectomy values ii) post-pancreatectomy values iii) post-pancreatectomy values adjusted for pre-pancreatectomy values. \* p<0.05 pre-surgery, # p<0.05 post-surgery and § p<0.05 pre-surgery adjusted for post-surgery. Box plots indicate median and interquartile range and whiskers indicate 2.5<sup>th</sup> -97.5<sup>th</sup> percentile, + = mean value.

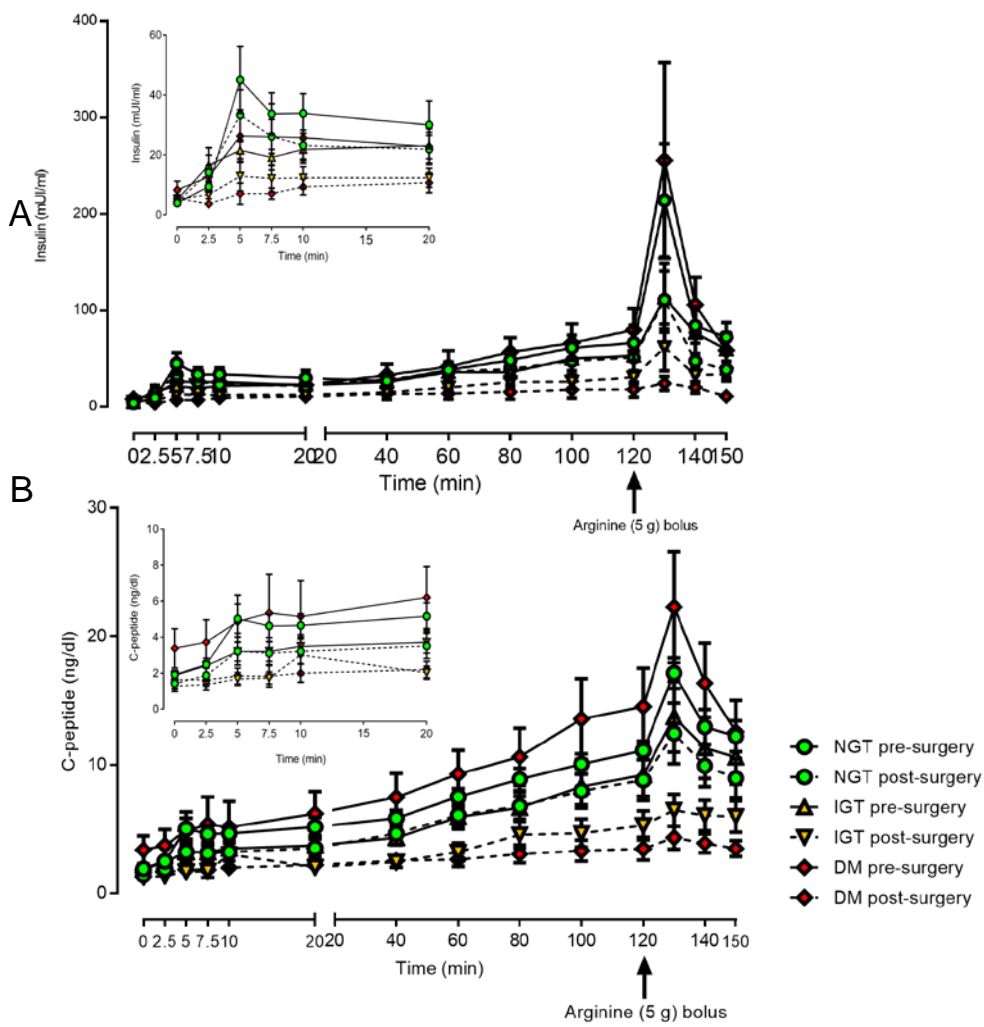
A



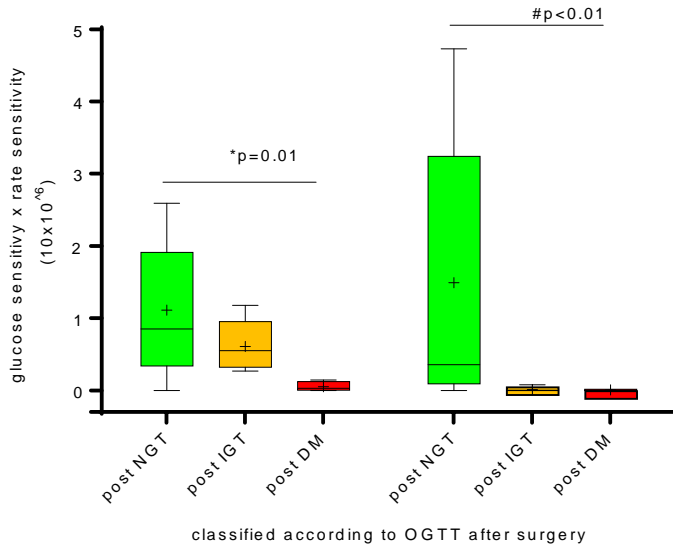
B



**Supplementary Figure 3:** Scatter plot of disposition index before partial pancreatectomy in normal glucose tolerant (green dots), impaired glucose tolerant (orange dots) and diabetic subjects (red dots). B mean disposition index before partial pancreatectomy in normal glucose tolerant (green bar), impaired glucose tolerant (orange bar) and diabetic subjects (red bar). The relationship between variables was derived by linear regression analysis. Variables were regressed against glucose tolerance status by using pre-pancreatectomy \*  $p < 0.05$  pre-surgery. Box plots indicate median and interquartile range and whiskers indicate 2.5<sup>th</sup> -97.5<sup>th</sup> percentile, + = mean value.



**Supplementary figure 4:** Insulin (A) C-peptide (B) levels during hyperglycemic clamp before (solid lines) and after (dotted lines) partial pancreatectomy in NGT (circle), IGT (triangle), DM (rhombus). Insert: first phase insulin (A) and C-peptide (B) levels during Hyperglycemic clamp 0'-30' min



**Supplementary figure 5:** Glucose x rate sensitivity during OGTT before and after partial pancreatectomy in NGT (green bar), IGT (orange bar), DM (red diamonds). Variables were regressed against glucose tolerance status by using i) pre-pancreatectomy values ii) post-pancreatectomy values iii) post-pancreatectomy values adjusted for pre-pancreatectomy values. \*  $p < 0.05$  pre-surgery, #  $p < 0.05$  post-surgery and §  $p < 0.05$  pre-surgery adjusted for post-surgery. Box plots indicate median and interquartile range and whiskers indicate 2.5<sup>th</sup> -97.5<sup>th</sup> percentile, + = mean value.