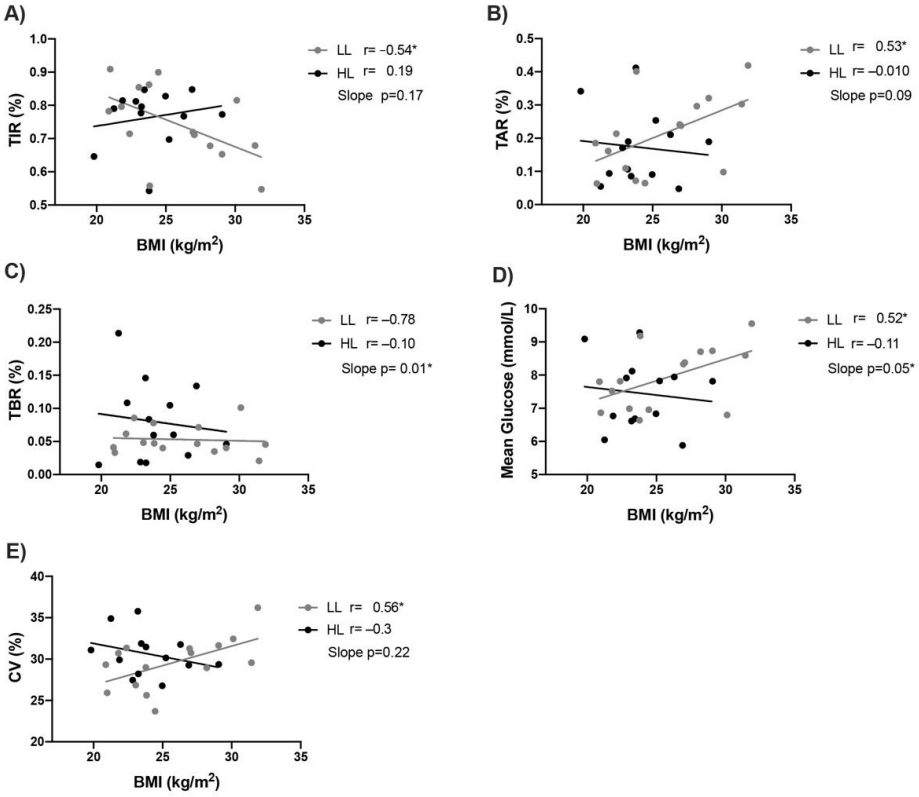
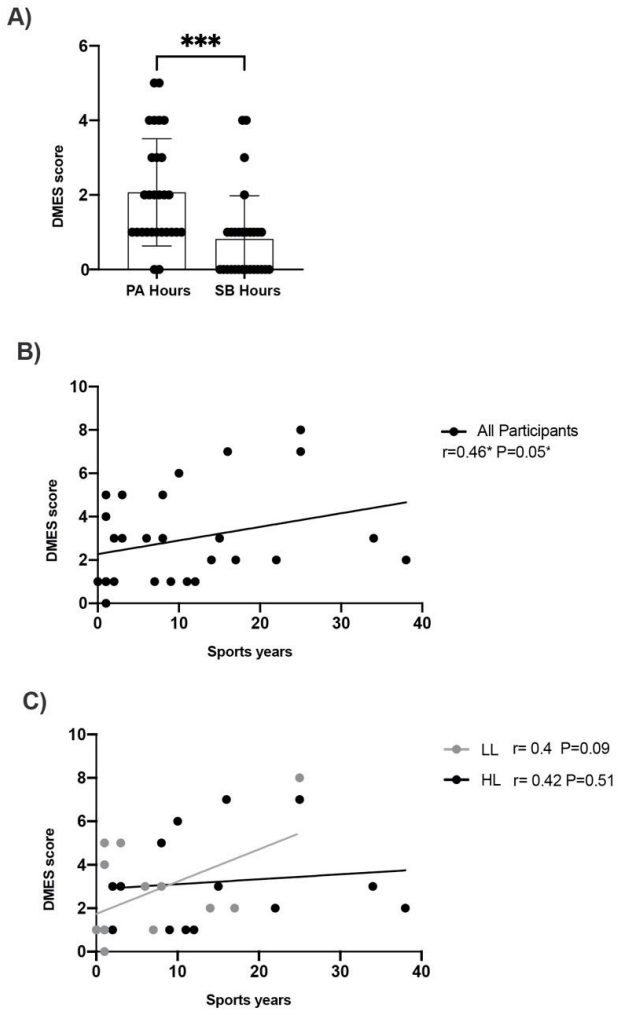
Supplementary Figures



Supplementary Figure 1. Glycemia parameters correlate with BMI in T1D physically active patients. Lower Load (LL) and Higher Load (HL) group correlation analysis between BMI and % of time in glucose range A) TIR, B) TAR, C) TBR, D) Mean Glucose (mmol/L); E) Glycemic coefficient of variation (CV) (%). Pearson correlation; *$p<0.05$.



Supplementary Figure 2. DMES evaluation according to active and sedentary hours and sport years. A) Comparison of DMES strategies (DMES score) in all participants according active (PA) and sedentary behavior (SB) hours; B) Correlation analyses between sports years and DMES score in all participants and C) according load group, Lower Load (LL), Higher Load (HL). Wilcoxon matched pairs signed rank test ***P value ≤0.001. Correlation of *Spearman*, *P value ≤0.05.

Supplementary Table 1 : Diabetes management strategies for exercise

During PA Strategies: Actions taken for diabetes management in the immediate time of PA, ranging from 90 minutes prior to PA onset including hours during PA.	Snack previous to PA	Carbohydrates consumed anywhere from 90 minutes prior to PA onset.
	Bolus reduction for food previous to PA	Reduced meal insulin bolus for carbohydrates consumed from 90 minutes prior to PA onset.
	Basal insulin reduction previous to PA	Pre-exercise basal adjustment from 90 minutes prior to PA onset. Strategies include 50%-80% reduction and or pump suspension for PLGS system.
	Snack during PA	Carbohydrates consumed during minutes of PA execution.
	Basal insulin reduction during PA	Basal adjustment from time of PA onset until PA completion. Strategies include 50%-80% reduction and or pump suspension for PLGS system and during PA execution.
Post PA Strategies: Actions taken for diabetes management during the time right after executing PA and the following 24 hours.	Basal insulin reduction posterior to PA	Post-exercise basal adjustment up to 540 minutes after PA execution. Strategies include 10%-20% basal reduction for PLGS system.
	Correction bolus posterior to PA	Insulin bolus without food to avoid hyperglycemia post-exercise.
	Basal insulin reduction night posterior to PA	Nighttime post-exercise basal adjustment. Reduction up to 20% for PLGS system.
	Snack posterior to PA	Carbohydrates consumed anywhere up to 90 minutes from exercise completion.
	Bolus reduction for food posterior to PA	0-50% insulin bolus reduction post-exercise meal.

Supplementary Table 2: PA reported by patients and divided by less and more active groups

Exercise Type	Number of Subjects (n)	Total enrolled subjects (%)	LL Group (%)	HL Group (%)
Biking	15	54	43	64
Strenght Training	13	46	43	50
Running	13	46	43	50
Walking	13	46	21	71
Other	9	32	29	36
Cardio	5	18	7	29
Elliptical Training	3	11	7	14
Pilates	2	7	0	14
Swimming	2	7	7	7
Trekking	2	7	0	14
Yoga	1	4	0	7

Physical activity events reported with Garmin Forerunner 745.

Supplementary Table 3: Diabetes management strategies for exercise reported by group (n=14 per group)

Diabetes management strategies	LL Group	HL Group
During PA Strategies:		
Snack previous to PA	5/14	7/14
Bolus reduction for food previous to PA	6/14	5/14
Snack during PA	3/14	6/14
Basal insulin reduction previous to PA	5/14	7/14
Basal insulin reduction during PA	5/14	7/14
Post PA Strategies:		
Basal insulin reduction posterior to PA	3/14	2/14
Basal insulin reduction night posterior to PA	2/14	3/14
Snack posterior to PA	1/14	3/14
Bolus reduction for food posterior to PA	0/14	0/14
Correction bolus posterior to PA	4/14	5/14
DMES score	2 ± 2.2	3 ± 2.2

Values are the percentage of subjects' diabetes management strategies reported by each group. No statistical differences were found between groups.

Supplementary Table 3: Diabetes management strategies for exercise reported by group (n=14 per group)

Diabetes management strategies	LL Group	HL Group
PA Hours Strategies:		
Snack previous to PA	5/14	7/14
Bolus reduction for food previous to PA	6/14	5/14
Snack during PA	3/14	6/14
Basal insulin reduction previous to PA	5/14	7/14
Basal insulin reduction during PA	5/14	7/14
SB Hours Strategies:		
Basal insulin reduction posterior to PA	3/14	2/14
Basal insulin reduction night posterior to PA	2/14	3/14
Snack posterior to PA	1/14	3/14
Bolus reduction for food posterior to PA	0/14	0/14
Correction bolus posterior to PA	4/14	5/14
DMES score	2 ± 2.2	3 ± 2.2

Values are the percentage of subjects' diabetes management strategies reported by each group.
No statistical differences were found between groups.