## Supplementary Table SV Adjusted semen quality parameters and serum reproductive hormone concentrations according to marijuana smoking status after re-categorising marijuana smoking status based on last time smoked.

Reproductive parameters  Semen Quality Parameters	Marijuana smoking Adjusted means (95% CI) <sup>a</sup>			
	Never N = 297 men, 490 samples	Ever N = 365 men, 653 samples	Past N = 194 men, 308 samples	Recent N = 171 men, 345 samples
Ejaculate volume, mL	2.51 (2.31, 2.74)	2.39 (2.25, 2.54)	2.47 (2.29, 2.67)	2.31 (2.13, 2.49)
Sperm concentration, million/mL	45.3 (38.5, 53.2)	62.7 (56.0, 70.3)*	64.7 (55.9, 74.9)*	60.6 (52.2, 70.4)*
Total sperm count, million	114 (96.8, 134)	150 (133, 168)*	160 (138, 186)*	140 (120, 162)*
% Total Sperm Motility	45.6 (41.6, 49.5)	49.3 (46.2, 52.4)	49.6 (45.9, 53.4)	49.0 (45.2, 52.8)
% Progressive Sperm Motility	27.3 (24.6, 30.0)	29.6 (27.5, 31.7)	30.4 (27.8, 33.0)*	28.7 (26.1, 31.4)
% Normal Sperm Morphology	6.65 (5.90, 7.35)	6.79 (6.35, 7.23)	7.03 (6.45, 7.61)	6.56 (5.98, 7.13)
Sperm DNA Damage	N = 146	N = 150	N = 111	N = 39
Comet Extent, µm	124 (109, 142)	125 (111, 142)	129 (114, 147)	114 (98, 132)
Comet Tail DNA, %	29.6 (25.4, 34.4)	27.5 (23.9, 31.7)	27.0 (24.0, 32.0)	28 (24, 34)
Comet Tail Distributed Moment (TDM), µm	54.7 (48.9, 61.2)	55.7 (50.1, 61.9)	57.0 (51.0, 64.0)	51 (45, 58)
Comet Cells with High DNA damage, N	3.90 (0.69, 22.0)	3.21 (0.58, 17.89)	3.34 (0.60, 18.72)	2.81 (0.48, 16.34)
Hormone Concentrations	N = 149	N = 168	N = 130	N = 38
FSH, IU/L	7.78 (6.24, 9.69)	6.49 (5.28, 7.98)*	6.56 (5.32, 8.10)*	6.23 (4.83, 8.04)*
LH, IU/L	10.6 (8.60, 13.0)	10.2 (8.38, 12.3)	10.3 (8.48, 12.6)	9.63 (7.60, 12.2)
Inhibin-B, pg/mL	138 (112, 170)	150 (123, 183)	147 (120, 179)	162 (127, 206)
Estradiol, pg/mL	23.8 (19.3, 29.3)	25.7 (21.1, 31.2)	26.0 (21.3, 31.7)	24.6 (19.4, 31.3)
Testosterone, ng/dL	368 (322, 421)	376 (331, 426)	378 (332, 430)	368 (315, 430)
SHBG, nmol/L	23.6 (20.1, 27.7)	24.9 (21.4, 29.0)	24.3 (20.8, 28.4)	27.2 (22.6, 32.8)

Abbreviations: CI; confidence interval, N; number, FSH; follicle stimulating hormone, LH; luteinizing hormone, and SHBG; sex hormone-binding globulin; DNA, deoxyribonucleic acid.

<sup>a</sup>Adjusted marginal means were estimated using linear mixed models and a random intercept for each man for the semen quality parameters and linear regression models for the reproductive hormone concentrations and DNA integrity. The adjusted marginal means in each exposure category were adjusted for the covariates at their average levels for continuous variables and weighted average level of categorical variable in the model including age (years, continuous), race (white/not), sexual abstinence time (days, categorical), body mass index (kg/m², continuous), tobacco smoking (yes/no), coffee (binary) and alcohol intake (binary), cocaine use (yes/no), and calendar year (continuous). Motility models were further adjusted for time elapsed between semen collection and analysis.

<sup>\*</sup> P < 0.05 compared to never.