a — Alanine (nmol/mL) vs Time (min); inset bar chart AP vs VP, p = 0.87

b — Arginine (nmol/mL) vs Time (min); inset bar chart AP vs VP, p = 0.28

c — Asparagine (nmol/mL) vs Time (min); inset bar chart AP vs VP, p = 0.06

d — Glutamate (nmol/mL) vs Time (min); inset bar chart AP vs VP, p = 0.44

e — Glutamine (nmol/mL) vs Time (min); inset bar chart AP vs VP, p = 0.50

f — Serine (nmol/mL) vs Time (min); inset bar chart AP vs VP, p = 0.32

g — Histidine (nmol/mL) vs Time (min); inset bar chart AP vs VP, p = 0.50

h — Methionine (nmol/mL) vs Time (min); inset bar chart AP vs VP, p = 0.27

Supplementary table s1. Anthropometric, clinical and anthropometric characteristics of participants.

Characteristics	n=10
Age (years)	33.0 (27.5, 43.2)
Sex (n, %) Female	6 (60%)
Body weight (kg)	100(80.1,124)
BMI (kg/m²)	36.8 (31.8,41.3)
Waist (cm)	118(103,124)
Fat free mass (kg)	53.7 (43.1, 69.9)
Fat mass (kg)	44.4 (37.0, 53.9)
SBP (mmHg)	117 (112, 126)
DBP (mmHg)	80.0 (74.2,82.2)
Glucose (mgl/dL)	98.0 (93.3,105)
Total Cholesterol (mg/dL)	163 (155,183)
Tryglicerides (mg/dL)	155 (109,280)
Insulin (UI/mL)	16.2 (11.3, 19.6)
HOMA-IR	4.34 (3.10, 5.45)

Data are expresed as median (IQR 25,75). BMI: Body mass index; SBP: Systolic blood pressure; DBP: Diastolic pressure.

Figure legends

Supplementary Figure S1. Acute response of amino acids after 3 h of consuming protein shake made with calcium caseinate (PA) or soy protein isolate (PV) and the area under the curve (AUC), valine (A), isoleucine (B), leucine (C), lysine (D), proline (E), tyrosine (F), glycine (G), phenylalanine (H); data are presented as mean ± SE, statistical analysis was evaluated by Mann-Whitney U test, where *P < 0.05 and **P < 0.01.

Supplementary Figure S2. Acute response of amino acids after 3 h of consuming protein shake made with calcium caseinate (PA) or soy protein isolate (PV) and the area under the curve (AUC), alanine (A), arginine (B), asparagine (C), glutamate (D), glutamine (E), serine (F), histidine (G), methionine (H), threonine (I), tryptophan (J); data are presented as mean ± SE, statistical analysis was evaluated by Mann-Whitney U test, where *P < 0.05 and **P < 0.01.