Purpose: To investigate the effect of oral caffeine intake on choroidal thickness using optical coherence tomography (OCT). Methods: Eighteen otherwise healthy caffeine users and 18 controls were enrolled. All participants underwent OCT scanning with high-speed and resolution spectral-domain OCT device (3D OCT 2000, Topcon, Japan) at baseline, and 1 and 3 h following 200 mg oral caffeine intake in the study and after oral placebo in the control group. The measurements were taken in the morning (10-12 am) to avoid diurnal fluctuation. Results: The median choroidal thickness at the fovea prior to oral caffeine intake was 337.00 (IQR 83.75) μm, which decreased to 311.00 (IQR 79.25)μm at 1 h and 311.00 (IQR 75.00)μm at 3 h following oral caffeine intake (p=.001, .002, respectively). The median choroidal thickness was also significantly decreased following oral caffeine intake at other five extrafoveal points (p<.05 for all). The difference in choroidal thickness was not statistically significant between 1 and 3 h of caffeine intake at all six points. In the control group, the median baseline choroidal thickness at the fovea was 330.00 (IQR 88.75)μm, which was 330.50 (IQR 80.75)μm at 1 h and 330.50 (IQR 90.75)μm at 3 h ( p=.552, 0.704, respectively). Conclusions: Caffeine causes a significant decrease in choroidal thickness following oral intake. This decrease might be a result of reduced ocular blood flow due to its vasoconstrictive effect.