

In this investigation, 120 blood samples were collected from individuals with type-2 Diabetes mellitus who attended Baghdad Teaching Hospital between the period of March 1st and November 1st, 2023. These findings can be attributed to the recruitment strategy employed by the researchers aiming to ensure that participants' ages and genders aligned across both groups to minimize potential confounding factors that may affect results. The mean BMI values for patients and controls were found to be (28.49 ± 5.11) and (27.17 ± 5.18) , respectively, with no notable differences between them ($p > 0.05$). Insulin levels also showed significant variation within these groups. Demographics (mean SDs = 262 ± 39 vs 47 ± 13 versus 130 ± 50 vs 39 ± 41 , $p < 0.01$). In terms of gender distribution, the study revealed an equal ratio between males and females in both groups without any significant difference ($p > 0.05$). The results indicated that there was no significant difference ($p > 0.05$) in mean age and standard deviation (SD) for both patient and control groups, which were recorded as (43.86 ± 14.67) and (43.16 ± 13.77) , respectively. **Keywords:** C-Peptide; insulin; Type-2 DM patient to make it sound different.