



**Proceeding**

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# Diabetes Burden on Bone Turnover among Children and Adolescent

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## Back ground

Diabetes has its burden on bone turnover among children and adolescents. Little is known about the relationship between both. Objective: to determine the relationship between diabetes and bone turnover among children and adolescents. Patients and Methods: the study was a cross sectional descriptive study at the Suez canal University hospital, Paediatric department. 39 subjects with diabetes were recruited with 39 matched healthy controls. Glycosylated hemoglobin (HbA1c), Alkaline phosphatase (ALP), Urinary Pyridinoline crosslinks (PYD) were done.

## Results

PYD was significantly higher among subjects with diabetes. PYD/creatinine among type 1 diabetes participant were +3 SD away

from the mean of the control group. There was no significant correlation between ALP or PYD/creatinine and HbA1c in diabetic participants.

## Conclusion

Type 1 diabetes is significantly associated with higher bone catabolism indicated by the higher bone markers of PYD levels without coupling bone formation. No correlation or association between glycemic control and bone markers. Diabetes and bone resorption could be co-morbid condition stemming from a common pathological route.



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