

دار جامعة حمد بن خليفة للنشر

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## **HBKU Press highlights the importance of youth awareness of diabetes on Qatar Sports Day 2017**

**Doha, Qatar:** Type II diabetes is one of the top causes of death in Qatar, despite the fact that it is completely avoidable. According to the International Diabetes Federation, the national prevalence of diabetes in Qatar is around 13.5% of adults between the ages of 20 and 79. According to the World Health Organization, diabetes accounts for 9 % of the total deaths in Qatar among all age groups, which makes the proportional mortality rate third only to cancers and cardiovascular disease when considering internal, non-communicable diseases.

A person is diagnosed with diabetes when there is too much glucose in the blood stream and the body cannot produce enough insulin in the pancreas to transfer the sugar from the blood to other areas in the body for energy.

Diabetes is categorised into two different types: Type I diabetes is passed on genetically and is not related to eating habits or lifestyle choices; and Type II diabetes is a symptom of an unhealthy lifestyle that includes poor eating habits, excessive weight gain, lack of exercise and a low level of overall fitness. While the disease is not curable, it can be prevented by maintaining a healthy diet and getting regular exercise and be treated by insulin intakes and oral medications in addition to this.

Information about diabetes can be found on HBKU Press's online, open access platform, QScience.com which is a hub of information that aims to simplify the plethora of information available on diabetes, and a variety of other topics, in an effort to make it more accessible. Peer-reviewed research papers and articles about concerning health, the environment, education and so on, are available and can be accessed by researchers and the general public alike.

In an article titled, "**Diabetes Awareness Among High School Students in Qatar**" by Sara Amani from Texas A&M University at Qatar, details the shocking lack of information and misinformation among high school students today about the causes of diabetes. When asked about the ways to prevent the disease, 30% of the 189 high school students interviewed answered "not smoking", 8% responded with "washing your hands", and surprisingly even 3% responded with "dressing modestly".

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This unfortunate lack of information and misinformation can be easily remedied as detailed by a study published in the *Avicenna* journal which was written in collaboration between the College of Pharmacy at Qatar University and the Qatar Diabetes Association, a member of Qatar Foundation, titled, “**A program for obese youth at-risk for diabetes in Qatar**”. They found that simply informing youth about the disease, its causes and preventative methods would enable them to make better life choices in relation to the disease. A total of 87 % and 100 % of girls and boys respectively felt ready to devise an action plan for their own improved health after being involved in an intervention program that provided them with information about how healthy food choices and exercise could decrease their chances of getting Type II diabetes.

Dr. Abdulla Al- Hamaq, Executive Director of Qatar Diabetes Association explains that efforts are already underway to support youth awareness.

“With the high prevalence of obese and overweight youth and diabetes in adults, it is very likely that the prevalence of pre-diabetes and Type II diabetes will increase in the young population,” Dr. Al- Hamaq explains. “Working on prevention is the best. QDA is stepping up its awareness activity in schools and universities and conducts two weight reduction camps per year targeting the youth who are identified with high risk of diabetes.”

The latest research on diabetes looks to couple youth awareness and education in conjunction with early detection among youth as a way to combat diabetes.

Most recently, a group of scientists led by Dr. Abdelilah Arredouani from the Diabetes Research Center at the Qatar Biomedical Research Institute (QBRI), a research institute of Hamad Bin Khalifa University (HBKU), and Dr. Mario Falchi from the Department of Twin Research at Kings College in London, have been taking a look at a specific salivary protein, alpha-amylase which is produced by the salivary glands and is released in saliva, as an indicator of people at-risk for Type II diabetes. The team has based their research on other studies of the protein.

“The study is a follow up of other studies that showed an association between low levels of salivary amylase and obesity and glucose intolerance,” explains Dr. Arredouani. “However, the mechanisms underlying these associations are not understood. In our study, we tried to decipher these mechanisms by selecting individuals that differ only in the levels of serum salivary amylase.”

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This is the first study that concluded after trials that individuals with low levels alpha-amylase may cause the body's energy production sources to switch from sugars to fatty acids. This type of genetic indicator can lead to early detection of at-risk youth which will allow doctors and healthcare practitioners to properly implement intervention and awareness campaigns that are tailored to those deemed at risk, thus, making them more effective.

“If our finding is confirmed, we may start thinking about the low salivary amylase as a predictive biomarker for Type II diabetes,” said Dr. Arredouani. “The benefit would be that young people with low salivary amylase will be regularly checked and advised not to ingest starchy foods chronically.”

The aim of QScience.com is to make academic articles easily available to the public, with support from HBKU Press to disseminate this information in an effort to reinforce the importance of an open dialogue between youth and their elders when it comes to Type II diabetes.

“Not only is QScience.com a valuable reference point for researchers,” explains Dr. Alwaleed Alkhaja, Senior Editor at HBKU Press. “It’s a great tool for the general public to keep up-to-date about subjects that they care about.”

If the current alarming trends continue, it is expected that 73% of men and 69% of women in the country will be obese by 2030. Since Type II diabetes is developed later in life and is completely preventable, it is imperative that youth are well informed early on about diabetes prevention and develop healthy habits during adolescence that they can carry on throughout their adult lives.

—ENDS—

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#### **ABOUT HBKU PRESS**

Hamad Bin Khalifa University Press (HBKU Press), formerly known as Bloomsbury Qatar Foundation Publishing (BQFP), launched its program in 2010 as a world-class publishing house founded on international best practices, excellence and innovation. HBKU Press strives to be a

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cornerstone of Qatar's knowledge-based economy by providing a unique local and international platform for literature, literacy, scholarship, discovery and learning. Headquartered in Doha, Qatar, HBKU Press publishes peer reviewed journals, monographs, reference books, fiction and non-fiction titles for adults and for children. Aiming to promote the love of reading and writing, HBKU Press is helping to establish a vibrant scholarly and literary culture in Qatar and the Middle East.

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