

## Medical News

DOI: <https://doi.org/10.70302/jpsim.v4i4.2371>**Higher Triglycerides Linked to Lower Dementia Risk**

Medscape

October 31, 2023

**TOPLINE:**

Higher triglyceride levels — a main energy source for the brain — are associated with lower risk for dementia that is not mediated by age, sex, or APOE-ε4 allele status, a large study of community-dwelling older adults suggests.

**Methodology:**

- The analysis included 18,294 participants, median age 75 years and median triglyceride level 106 mg/dL, from the ASPirin in Reducing Events in the Elderly (ASPREE) study, a placebo-controlled, randomized trial of daily low-dose aspirin in older people without dementia or history of cardiovascular disease (CVD) at recruitment.
- Researchers repeated their main analyses in a sub-cohort of 13,976 subjects with APOE-ε4 genetic data, and an external cohort of 68,200 participants, mean age 66.9 years and a median non-fasting triglyceride of 139 mg/dL, from the UK biobank, followed for a median of 12.5 years.
- The main outcome was incident dementia over 6.4 years and secondary outcomes included changes in composite cognitive function and domain-specific cognition.
- Researchers controlled for a number of potential confounders, including age, sex, race, smoking, alcohol consumption, education, family history of dementia, diabetes, hypertension, and statin use.

**Results:**

- Every doubling of baseline triglycerides was associated with an 18% lower risk of incident dementia across the entire study cohort and in participants with genotypic data and a 17% lower risk in the external UK Biobank cohort ( $P \leq .01$  for all).
- In the entire cohort, the risk for dementia was 15% lower in those with triglyceride levels at 63-106 mg/dL (aHR, 0.85); 24% lower in those at 107-186 mg/dL (aHR, 0.76); and 36% lower for those with levels higher than 187 mg/dL (aHR, 0.64) compared

with individuals with levels below 62 mg/dL ( $P$  for trend  $< .001$ ).

- The direction and magnitude of the inverse association between triglycerides and dementia risk were not modified by age, sex, or risk factors related to triglycerides or dementia.
- In the entire study cohort, higher triglyceride levels were significantly associated with slower decline in global cognition ( $P = .02$ ), composite cognition ( $P = .03$ ), and a borderline significantly slower decline in episodic memory ( $P = .05$ ).

This study showed that "Triglyceride levels may serve as a useful predictor for dementia risk and cognitive decline in older populations." Higher triglyceride levels may reflect better overall health and/or lifestyle behaviors that protect against dementia.

**Women More Likely to Have Obesity in Low- and Middle-Income Countries**

Medscape

November 01, 2023

Women are 2-3 times more likely than men to have obesity in low- and middle-income countries, with the disparity as much as 10 times higher among women in the sub-Saharan region of Africa. Key factors believed to contribute to the higher obesity rates include weight gain during pregnancy and menopause, poor dietary habits, sedentary lifestyles, and socio-cultural aspects such as beliefs that larger body types suggest high socioeconomic status and fertility.

**Methodology:**

- A systematic review and meta-analysis of 345 studies involved 3.9 million people with data on associations between sex, obesity and cardiometabolic diseases.
- Three hundred of the studies reported data on obesity in women and men in low- and middle-income countries.
- Key metabolic diseases evaluated included type 2 diabetes, impaired glucose tolerance, dyslipidemia, and nonalcoholic fatty liver disease (now known as MASLD [metabolic dysfunction-associated steatotic liver disease]).
- Hypertension, coronary heart disease, myocardial

infarction, and stroke were included as obesity-related cardiovascular diseases.

- Obesity was defined as a body mass index (BMI) of  $\geq 27.5$  kg/m<sup>2</sup> in studies in the South Asian community, and  $\geq 30$  kg/m<sup>2</sup> in other populations.
- Studies including children, adolescents, and those in high-income countries, as well as smaller studies and secondary analyses, were excluded.

#### Results:

- Overall, the odds of obesity were 2.7-fold higher among women than men.
- There were significant disparities in the differences between genders and obesity based on regions, with significantly higher odds for women in studies from Sub-Saharan Africa, followed by the Middle East and North Africa, and Latin America and Caribbean regions.
- Studies from Sub-Saharan Africa reported odds that were 3-fold to as much as 10-fold higher in women than men.
- Gender disparities were observed regardless of the country's income status, setting and year of study being before or after 2000, as well as age.
- Women had a slight decrease in the risk for hypertension vs men (OR, 0.95), and a slight increase in the risk for type 2 diabetes (OR, 1.07).

### Five Hours or Less of Sleep per Night Tied to Subsequent Depression

Medscape

October 31, 2023

A genetic predisposition to sleep 5 or fewer hours per night is associated with a significantly higher risk for subsequent depression. However, a genetic propensity to depression is not associated with suboptimal sleep patterns later on, new research shows.

#### Methodology:

- The analysis included participants in the English Longitudinal Study of Ageing (ELSA), a prospective cohort study of a representative UK sample (mean age, 65 years) that is assessed biennially.
- Researchers collected data on sleep duration and depression through nurse home visits and computer-assisted personal interviews and used combined ELSA waves from 2004 to 2008, when collection of genetic data began.
- Using genome-wide association studies from the UK Biobank, the authors constructed polygenic scores (PGSs) to predict an individual's genetic risk over an average of 8 years for a disease or out-

come, overall sleep duration, short sleep ( $\leq 5$  hours nightly), long sleep ( $\geq 9$  hours of sleep nightly), and depression.

- The analysis included two analytic samples; one involved 6521 persons to determine the role of baseline sleep on depression (assessed using the Center for Epidemiologic Studies Depression Scale) at follow-up, and the other involved 6070 persons to determine the role of baseline depression on suboptimal sleep at follow-up.

#### Results:

- After adjustments, including for age and sex, a 1-standard deviation increase in PGS for short sleep was associated with an increase of 14% in odds of developing depression during the follow-up period (odds ratio [OR], 1.14; P = .008).
- There was no significant association of the PGS for sleep duration or long sleep with the onset of depression.
- There were no significant associations between PGS for depression and future overall sleep duration, short sleep, and long sleep by the end of the follow-up, suggesting that different mechanisms underlie the relationship between depression and subsequent onset of suboptimal sleep in older adults.
- Several sensitivity analyses — including additional adjustment for socioeconomic, environmental and behavioral factors — upheld the findings of the main analysis, highlighting the robustness of the results.

The study showed that common genetic markers for short sleep play an important role in the incidence of depression in older adults, the authors note, adding that the new findings "support a growing view that short-sleep is more salient to the experience of depression than long sleep" across the lifespan.

### Celiac Disease and Higher Risk of Women's Health Disorders

Medscape

November 02, 2023

Women with celiac disease face a much higher risk of other health complications, including ovarian failure, endometriosis, and pregnancy loss, a large new study suggests.

"The key message here is that celiac disease is associated with higher odds of women's health disorders," Women with celiac disease should be aware of these associations, and doctors should be careful to check for any additional risks.

Compared to women without the condition, those with celiac disease also had significantly higher rates of polycystic ovary syndrome, irregular menstruation, and infertility.

The study found that women with celiac disease have a six times greater chance of primary ovarian failure, a 2½ times higher chance of endometriosis, and twice the odds of repeated pregnancy loss — compared to women without celiac disease.

But researchers couldn't figure out why celiac disease raises these risks in women.

They looked at rates of health disorders in 9,368 women with celiac disease and another 25 million women without the condition matched for age, race, and body mass index using a national database of medical claims.

The number of people diagnosed with celiac disease continues to grow, and it remains more common among women. Other researchers, for example, report women are about twice as likely as men to be diagnosed with celiac disease.

Diagnosis was based on a positive blood test, biopsy results, and/or a code in the records that a woman had dietary counseling regarding celiac disease.

Researchers included girls and women 10 to 60 years old. Those 10 years to 18 years old with celiac disease were almost four times more likely to have what's known as delayed menarche, in which a girl does not begin menstruating by age 15 or within 3 years from the time adult breasts start to form. In the next age group, women 19 to 35, those with celiac disease had higher rates of polycystic ovary syndrome, or PCOS, endometriosis, and infertility. Women 36 to 45 with celiac disease also had higher rates of these three disorders, as well as menopausal disorders including premature menopause. Women 46 to 60 also had higher rates of menopausal disorders if they were diagnosed with celiac disease.

Researchers said their large study could help clear up some prior contradictory evidence about these associations and adds a new link to higher rates of PCOS in women with celiac disease.

The large number of women from a diverse outpatient population was strengths of the research. Because it used data collected for reasons other than research, some factors, like the effect of diet on the rates of health disorders, could not be determined.

#### Closer Follow-Up Recommended

The study suggests that girls and women with celiac disease should have tests done for these other health conditions. The research is impactful "because it

allows us to keep in mind co-existing conditions that may affect our patients' quality of life, including infertility. The message for primary care doctors and OB/GYNs is to consider these other conditions in women with celiac disease and bring patients back for regular follow-up visits.

#### More Evidence Metformin May Be Neuroprotective

Medscape

October 31, 2023

New research suggests terminating metformin may raise the risk for dementia in older adults with type 2 diabetes, providing more evidence of metformin's potential neuroprotective effects.

#### Methodology:

- Researchers evaluated the association between discontinuing metformin for reasons unrelated to kidney dysfunction and dementia incidence.
- The cohort included 12,220 Kaiser Permanente Northern California members who stopped metformin early (with normal kidney function) and 29,126 routine metformin users.
- The cohort of early terminators was 46% women with an average age of 59 years at the start of metformin prescription. The cohort continuing metformin was 47% women, with a start age of 61 years.

#### Results:

- Adults who stopped metformin early were 21% more likely to be diagnosed with dementia during follow up compared with routine metformin users.
- This association was largely independent of changes in A1c level and insulin usage.

#### In Practice:

The findings "corroborate the largely consistent evidence from other observational studies showing an association between metformin use and lower dementia incidence [and] may have important implications for clinical treatment of adults with diabetes.

## PSIM NEWS CORNER



### JPSIM Accreditation by Health Education Commission of Pakistan

A dream doesn't become reality through magic; it takes sweat, determination and hard work.

Here is the proud editorial team of JPSIM under patronage of Prof. Javed Akram (Editor in chief JPSIM) with another break though landmark of accreditation of JPSIM by Health education Commission of Pakistan.

It was indeed a long journey with challenging learning experience. With the 1st issue published in Oct-Dec 2020 to its 4th volume in 2023, JPSIM has covered a journey of medical research in a glorious way and has proved itself as an exemplary ambassador of vision and mission of PSIM, i.e: to promote quality medical practice and to develop standards of quality patient care through research and continuing medical education activities.

With this long waited approval from PMDC and now by HEC, JPSIM will maintain the highest level of ethical integrity, ensuring consistency and scientific rigor in each of its research articles and it will continue to excel and insightfully build for the future to provide the greatest venue for sharing outstanding science. The most competent editorial team of JPSIM under able leadership of Prof. Javed Akram (editor-in-chief) & Professor Aziz ur Rehman (Editor JPSIM) deserves huge appreciation for this landmark approval of JPSIM from PMDC and HEC all because of their untiring efforts in unveiling a historical medical journal to the world of medicine. Indeed khalil jibran has rightly said "Yesterday is but today's memory, and tomorrow is today's dream."



### JPSIM got Recognition by PMDC ...A Dream Come True

"Dreams don't work unless you take action. The surest way to make your dreams come true is to live with them."

It is a matter of pride and honor for Editorial board of JPSIM under patronage of Prof. Javed Akram (Editor-in-Chief) to announce the approval of JPSIM by Pakistan Medical & Dental Council in August 2023 ....a dream come true. It was indeed a long journey with challenging learning experience. With the 1<sup>st</sup> issue published in Oct-Dec 2020 to its 4th volume in 2023, JPSIM has covered a journey of medical research in a glorious way and has proved itself as an exemplary ambassador of vision and mission of PSIM, i.e: to promote quality medical practice and to develop standards of quality patient care through research and continuing medical education activities.

In a country like Pakistan, even after 76 years of existence, we are still struggling for qualitative research. There is an acute need for enhancing the existing medical publications in Pakistan. JPSIM is rightly poised to address these issues. With the mission to promote specific areas of internal medicine, JPSIM is dedicated to showcase the latest research in the field. The journal is publishing its issues quarterly since 2020 comprising of original research and review articles on the evidence and opinion behind emerging and existing diseases, diagnostics and cutting edge therapeutics.

With this long waited approval from PMDC, JPSIM will maintain the highest level of ethical integrity, ensuring consistency and scientific rigor in each of its research articles and it will continue to excel and insightfully build for the future to provide the greatest venue for sharing outstanding science. JPSIM will remain flexible in attending to the rapidly shifting scientific communication landscape and will further nourish as a flagship for communicating evidence based research.

The most capable editorial team of JPSIM under able leadership of Prof. Javed Akram & Prof. Aziz-ur-Rehman deserves huge appreciation for this landmark approval of JPSIM from PMDC all because of their untiring efforts in unveiling a historical medical journal to the world of medicine. Indeed "The excitement of dreams coming true is beyond the description of words." "When a dream is fulfilled, it is always a glorious feeling."

**Psim Midsummer Conference:**

Pakistan Society of Internal Medicine conducted its Mid Summer Meeting at the Pearl Continental, Bhurban from September 22<sup>nd</sup> to 24<sup>th</sup>, 2023 in which renowned lecturers from all over the world joined and discussed about major health problems well covered by media channels. This midsummer meeting was preceded by pre-conference workshops especially on writing and reviewing a research paper conducted by Prof. Aziz ur Rehman, Dr. Rizwan Iqbal and JPSIM team as a part of Pre conference workshop. Prof. Khalid Saeed Khan a distinguished investigator from University of Granada, Spain was the facilitator and tried to answer all the queries of the audience with his brilliant talk. President PSIM, Health Minister Punjab (specialized healthcare and medical education) Prof. Javed Akram addressed the audience and highlighted the importance of reasearch in medical field.

The conference was started with PSIM wellbeing walk focusing on the aspect of Route to health. Talk of the town was session on women leadership in healthcare which engaged the audience with diverse questions. The inaugural ceremony was attended by a number of dignitaries including Federal Health Minister Dr Nadeem Jan, health minister Punjab Dr. Javed Akram President PSIM, WHO's representative to Pakistan Dr Palitha Mahipala, President of Pakistan Medical and Dental Council (PMDC) Prof. Rizwan Taj. PSIM Secretary General Prof. Somia Iqtidar presented the journey of Pakistan Society of Internal Medicine (PSIM) and highlighted the aims, objectives as well as academic activities of the society and its accomplishments so far, which was very much appreciated by all those present.

This was followed by pharma exhibition and open house session for health and pharma dignitaries focusing on shortage of different life saving drugs and medical research.

There were different sessions covering all the nooks and corners of medicine with recent updates. Without doubt, all the sessions witnessed exemplary discussions about both common as well as rare medical conditions with active involvement by the participants.

**WORLD DIABETES DAY:**

537million adults around the world are living with diabetes accounting for a diabetes prevalence of 30.8% in Pakistan; while 643 million adults are predicted to be living with diabetes by 2030. World Diabetes Day is celebrated every year on November 14th to raise awareness about the growing concerns of diabetes and its impact on people's lives. This year's theme is "Access to Diabetes Care", focusing on the importance of early diagnosis, timely treatment, and access to quality care

for people living with diabetes.

Keeping up the tradition of raising awareness for every medical illness and in line with 2023's theme of ACCESS TO DIABETES CARE, Pakistan society of internal medicine in collaboration with Pakistan Endocrine Society organized a comprehensive activity today on November 14<sup>th</sup>, to raise awareness among public about this global health challenge and advocate for better



prevention, diagnosis, and treatment.

World diabetes day activity was preceded by a celebration/ award ceremony to pay homage to all the eminent health care professionals who has served exceptionally in the field of diabetes care. The ceremony was well attended by esteemed health professionals from all across Pakistan who were awarded for their untiring efforts by Governor Punjab Muhammad Baligh Ur Rehman and health minister Punjab Dr. Javed Akram, the president of PSIM. Governor house was lighted up in blue for world diabetes day exuding a majestic look.

On November 14<sup>th</sup> the day started with a walk on World Diabetes Day in collaboration with Pakistan Endocrine Society. The walk was led by Governor Muhammad Baligh Ur Rehman and Health Minister Punjab Prof.

Javed Akram who is president PSIM also.

Unfortunately, millions of people worldwide do not have access to the diabetes care they need leading to serious complications, such as heart disease, stroke, blindness, and amputation. To highlight the aspect of access to quality diabetes care, The walk was followed by free screening camp for all which includes access to Education and support for patients living with diabetes, Regular checkups, Affordable medications and risk of developing fractures and obesity.



