Arecent study conducted in Canada investigated three

levels of recovery in a

large, representative sample of more than 2,000

Canadians with a history

of generalized anxiety dis-

order (GAD) which result-ed that 72 per cent of

Canadians with a history

of GAD have been free of

the mental health condi-

tion for at least one year.
Overall, 40 per cent of
the Canadian population
were in a state of excellent

mental health, and almost

60 per cent had no other

mental illness or addiction

issues, such as suicidal

dependence, a major depressive disorder or a bipolar disorder, in the past year. The definition of

excellent mental health

sets a very high bar. To be

defined in excellent men-

tal health, respondents

had to achieve three things: 1) almost daily

happiness or life satisfac-

dom from generalized anxi-

ety disorder and depressive

disorders, suicidal thoughts

and substance dependence

for at least the preceding

full year. "We were so encouraged to learn that

even among those whose anxiety disorders had last-

ed a decade or longer, half

had been in remission from GAD for the past

year and one-quarter had

achieved excellent mental health and well-being,"

substance

thoughts,

Tea drinkers to have a longer and healthier life A study has revealed that drinking tea at least three times a least three ti

study has revealed that drinking tea at least three. least three times a week was connected with healthy years of life and longer life expectancy.

The research was published in the European Journal of Preventive Cardiology, a journal of the European Society of Cardiology (ESC). Dr Xinyan Wang, who is the author of the study said, "Habitual tea consumption "Habitual tea consumption is associated with lower risks of cardiovascular disease and all-cause death.
The favourable health
effects are the most robust for green tea and for long-term habitual tea drinkers."

The analysis that was conducted included about 100,902 participants of the China-PAR project2 with no history of heart attack, stroke, or cancer. Participants were classicancer. fied into two groups: habit-ual tea drinkers and never non-habitual tea drinkers and followed-up

for a median of 7.3 years. The analyses estimated that 50-year-old habitual

postpartum hemor-rhage (PPH).

ventions that could

be used to stop the

bleeding before the problem becomes unmanageable require high-tech

equipment and extensive training

which very few hos-

pitals around the

globe have access to. UBT, on the other hand, is quite

simpler and has been

and arrests hemorrhage.

UBT technique is 85.9 per cent.

Advanced inter-

Scientists find technique

to prevent deaths due

to postpartum haemorrhage

takes place due to postpartum hemorrhage (PPH).

The study was published in the recent edition of the journal American Journal of Obstetrics and Gynecology. According to the latest statistics of the

World Health Organisation, more than 800 women

die every day from preventable causes that are related to pregnancy and childbirth & the major reason is

available since the 1980s. The technique involves

insertion of balloon through the cering catheter and is inflated with water which fills the uterine cavity

"The reason we undertook this study is that those two trials caused a great deal of confusion and controversy regarding UBT. We decided to take an extremely rigorous approach, bringing together all of

the world's literature on this technique and inviting

independent investigators to join. It was a massive project," said researcher Thomas Burke.

bined with a systematic review of 91 randomized con-

trol trials, nonrandomized studies, and case series,

and concluded that the overall success rate of the

saving a life is much more complex than just handing

someone a device that's new to their practice. We

need to study how to integrate the device into a

health system so that good uptake, appropriate use,

and best practice result in quality care," Burke said.

The researchers also pointed out that it is clear that

maternal mortality drops significantly in many parts

of the world where UBT technique is used for its

The researchers conducted a meta-analysis com-

"There's no question the device works fine. But

TWO recent studies have found out that Uterine Balloon Tamponade (UBT) technique is about

86 per cent effective in maternal death that

stroke 1.41 years later and live 1.26 years longer than those who never or seldom drank tea. Compared with never or non-habitual tea

drinkers, habitual tea consumers had a 20 per cent lower risk of incident heart disease and stroke, 22 per cent lower risk of fatal heart disease and stroke, and 15 per cent decreased risk of all-cause death. The potential influence of changes in tea drinking behav-iour was suspected in a subset of 14,081 participants assessments at twotime points. The

average duration between the two surveys was 8.2 years, and the median follow-up after the second survey was 5.3 years. Habitual tea drinkers

who maintained their habit in both surveys had a 39 per cent lower risk of inci-dent heart disease and stroke, 56 per cent lower

decreased risk of all-cause death compared to consistent never or non-habitual tea drinkers.



Senior author Dr Dongfeng Gu, said, "The protective effects of tea were most pronounced among the consistent habitual tea drinking group. Mechanism studies have suggested that the main bioactive compounds in tea, namely polyphenols, are not stored in the body long-term. Thus, frequent

resulted in a mathemati-

cal framework that simu-

lates the effects of the key

parameters that control interactions between mol-

ecules that have multiple binding sites, as is the case for many medicines. Researchers plan to use

this computational model

to develop a web-based

app that other researchers can use to speed the devel-opment of new therapies

The research is published in the Proceedings of the National Academy

of Sciences (PNAS), one of

the world's most-cited and

comprehensive multidisci-plinary scientific journals.

"The big advance with this study is that usually researchers use a trial-

University of Minnesota

biomedical engineering associate professor and

senior author of the study.

model will make research

much more efficient and

'This computational

for diseases.

for the cardioprotective

In a subanalysis by type of tea, drinking green tea was linked with approximately 25 per cent lower risks for incident heart dis-ease and stroke, fatal

heart disease and stroke, and all-cause death. However, no significant associations were observed for black tea. Dr Gu noted that a preference for green tea is unique to East Two factors

may be at play. First, green tea is a rich source of polyphenols which protect against cardiovascular disease and its risk factors including high blood pressure and dyslipidaemia. Black tea is fully fermented and during this process, polyphenols are oxidised into pigments and may lose their antioxidant effects. Second, black tea is often

favourable health effects of tea on vascular function.

Gender-specific analyses showed that the protective effects of habitual tea consumption were pronounced and robust across different outcomes for men, but only modest for women. but only modest for women. Dr Wang said, "One reason might be that 48% of men were habitual tea consumers compared to just 20 per cent of women. Secondly, women had a much lower incidence of much lower incidence of, and mortality from, heart disease and stroke. These differences made it more likely to find statistically significant results among

She added, "The China-PAR project is ongoing, and with more person-years of follow-up among women the associations may become more propounced." become more pronounced." In conclusion, the authors found that randomized trials are required to validate the results and to illustrate nutritional guidelines and advice for lifestyle.

tion in the past month, 2) high levels of social and psychological well-being in the past month, and 3) freeserved with milk, which Study attempts to simulate molecular interactions for developing better medicines

pioneering study in the field of molecu-lar interactions can could accelerate the creation of new therapies for many kinds of diseases." potentially facilitate sci-The research team studied three main parameters of molecular entists in creating new medications and therainteractions binding strength of each site, rigidity of the linkages between the sites, and the peutic approaches to treat diseases such as cancer, HIV and autoimmune disorders. This study by bio-medical engineers from the University of size of the linkage arrays. They looked at how these three parameters can be "dialed up" or "dialed Minnesota's College of Science and Engineering

The need for a mathematical framework to decode this programming language is highlighted by the researchers' find-ing that, even when the interacting molecule chains have just three binding sites each, there are a total of 78 unique binding configurations, most of which cannot



down" to control how molecule chains with two or three binding sites interact with one another. The team then confirmed their model predictions in

and-error experimental method in the lab for lab experiments.

"At a fundamental level, many diseases can be studying these kinds of molecular interactions, traced to a molecule not but here we developed a binding correctly," said mathematical model Wesley Errington, a University of Minnesota where we know the parameters so we can biomedical engineering postdoctoral researcher make accurate predictions using a computer," said Casim Sarkar, a and lead author of the

understanding how we can manipulate these 'dials' that control molecular behaviour, we have developed a new programming language that can be used to predict how

be experimentally observed.

By dialling the parameters in this new matheresearchers can quickly understand how these dif-ferent binding configura-tions are affected, and tune them for a wide range of biological and medical applications.

"We think we've hit or rules that are fundamental to all molecules, such as proteins, DNA, and medicines, and can be scaled up for more complex interactions," said Errington "It's really a molecular signature that we can use to study and to engineer molecular systems. The sky is the limit with this approach.

says Esme Fuller-Thomson, lead author of the study.

Fuller-Thomson is Director of the University of Toronto's Institute for Life Course and Aging and Professor at the Factor-Inwentash Faculty of Social Work and the Department of Family and Community

confidant can foster a sense of belonging and self-worth which may pro-mote recovery," says co-author Kandace Ryckman, a recent graduate of the University of Toronto's Masters of Public Health. The researchers found that poor physical health, functional limita-



Medicine. "This research provides a very hopeful message for individuals message for individuals struggling with anxiety, their families and health professionals. Our findings suggest that full recovery is possible, even among those who have suffered for many years with the disorder," she said. Individuals who had at least one person in their least one person in their lives who provided them with a sense of emotional security and wellbeing were three times more likely to be in excellent mental health than those without a confidant.

"For those with anxiety disorders, the social sup-port that extends from a

tions, insomnia and a history of depression were impediments to excellent mental health in the sample. "Health professionals who are treating individu-als with anxiety disorders need to consider their patients' physical health problems and social isolation in their treatment plans," says Ryckman.

The researchers examined a nationally representative sample of 2,128 Canadian community-dwelling adults who had a generalized anxiety disorder at some point in their lives. The data were drawn from Statistics Canadian Community Hea Survey-Mental Health.

Women under age of 21 unnecessarily undergo certain medical tests, finds study

RECAUTION is better than cure while the popular saying applies for all, over-precaution can do more harm than good. Females who are younger than 21 years of age do not need a pelvic examination or cervical cancer screenings. But, there are innumerable outdated tests being carried out on girls between 15

to 20 years. A recent study at the Centers for Disease Control and Prevention (CDC) & UC San Francisco came up with the data that a yearly 1.6 million Pap tests and 1.4 million pelvic tests take place on girls under age 21. The research also sug-

gests that people and even physicians tend to neglect the experts' age recom-mendation guide when it comes to these tests. As a result, the chances of false-positive results, anxiety among test-takers and needless cost increase unnecessarily. The study appeared on Monday in Jama Internal Medicine. Author George F Sawaya, professor of Obstetrics, Gynecology and Reproductive Sciences at UCSF, stated that the

media reports



called for attention to inappropriate gynecologic examinations conducted

on young women. "Parents of young girls should know cervical cancer screening is not required routinely during this age,' Sawaya shared, also sug gesting, "Pelvic exams are not needed before getting most contraceptives and are often not needed to screen for sexually transmissible infections."

The study was originally aimed at keeping a count of the number of such tests taking place in the United States. The research involved data available between 2011 and 2017. The researchers found out among all the tests (approximately 2.6 million) that were conduct.

lion) that were conducted in all these years, more than half (around 54.4 per cent) were unnecessary.
"Healthcare

providers and young women need to communiabout the best time for these tests," said first author Jin Qin, ScD, an epidemiologist with the Division of Cancer Prevention and Control at the Centers for Disease Control and Prevention.

'We want to ensure that guidelines are fol-lowed, and lives are saved," he concluded.

Study focuses on young women getting unnecessary pelvic exams

examinations and cervical cancer screenings are no longer recommended for most females under age 21, but a new study has found that millions of young women are unnecessarily undergoing these tests, which can lead to falsepositive testing, over-treatment, anxiety and needless expenses.

Researchers at UC San Francisco and the Centers for Disease Control and Prevention for Disease (CDC) estimated that 1.4 million pelvic examina-tions and 1.6 million Pap tests performed on US females between the ages of 15 to 20 years in a single year may have been medically unnecessary. The findings suggest that despite professional guidelines and recommendations against routine pelvic examinations and Pap tests in this age group, there's a critical lag in clinical practice. The estimated cost of these unnecessary exams was approximately USD 123 million a year. The study was published in the journal IAMA Introduced to the control of the cont JAMA Internal Medicine. "Recent media reports have called attention to inappropriate gynecologic examinations

in young women," said

senior author George F.

Sawaya, MD, professor of Obstetrics, _ Gynecology Sawaya, Gynecology Obstetrics, Gynecology Reproductive Sciences at UCSF and director of the UCSF Center for Healthcare Value. "Parents of adolescents and values up the science of the UCSF center for Healthcare Value". cents and young women should be aware that cervical cancer screening is not recommended routineasymptomatic women who are not pregnant.

The new analysis was intended to estimate how often pelvic examinations and Pap tests occurred among young women in the U.S., as well as the proportion that was potentially unnecessary. The popula-



this

group. Pelvic exams are not necessary prior to get most contraceptives and are often not needed to screen for sexually trans-Sawaya said.

Cervical cancer screening is not recommended for individuals under age 21, according to the U.S. Preventive Services Task Force, the American College of Obstetricians and Gynecologists, and the American Cancer Society. Additionally, leading professional organizations recommend against performing pelvic examinations in

based study used data from 2011 to 2017. The investigators estimated that of approximately 2.6 million young women who received a pelvic exam during the pre-vious year, more than half (54.4 per cent) were potentially unnecessary, representing an estimated 1.4 million young women. Young women who had been screened for a sexually transmitted infection were 3.8 times more likely to receive a Pap test and 60 per cent more likely to receive a pelvic examination, compared with those

hâd not been

screened.

Genetic differences distinguish Children's type 1 diabetes from Adults' type 1.5 RESEARCHERS from Philadelphia have discovered a

genetic signature that could be helpful in distinguishing pediatric-onset T1d from the adult-onset form of diabetes sharing type1 diabetes (T1d).

This discovery which was published in the journal - Diabetes Care - has opened the door to straightforward diagnostic tests for the adult conditests for the adult condition and for improving responses by ensuring that patients receive appropriate treatment. "This is our first insight into genetic differences between latent autoimmune diabetes in adults and T1D in children that may be diagnostically useful. We have found a genetic means of discriminating between the two conditions without expensive and cumbersome antiautobody screening," said the lead researcher Struan

Latent autoimmune diabetes in adults (LADA) is often also known as 'type 1.5 diabetes' as it consists of characteristics of both T1D and type 2 diabetes (T2D). LADA produces auto-antibodies that attack the insulin-producing beta cells present in the pan-creas. Patients with LADA get diagnosed with the same during adulthood and do not require insulin at the time of diagnosis.

This is why LADA is often misdiagnosed as T2D. According to certain studies, up to 10% of T2D diagnoses are, in fact, LADA, and this is why patients do not respond to the commonly inappropriate treatprescribed to them. Another study found

While controlling for genetic variants in MHC in such patients, researchers did not observe any additional association within this key region, which is an important genetic distinction between the two given



that LADA has more in common with T1D than with T2D from a genetic perspective. Researchers further took a deeper dive and looked for genetic differences that could help in distinguishing between T1D and LADA. In the end, the team of researchers found out that when it came to the T1D group, the results from the earlier studies held: the controlling for genetic variants that were in one part of the MHC revealed the variants present in another part of MHC. The researchers, however, did not find the same effect with LADA

When a sensitivity test was conducted to the two cohorts, researchers continued to observe the effect only in T1D patients and not in the patients

with LADA. "This suggests that these MHC class associations may be a genetic discriminator between LADA and childhood-onset T1D. The next step is to look at this association in different ethnicities, particular-ly African ancestry, where the prevalence of adultonset diabetes can be significantly higher in certain parts of the world," said a researcher Diana

Scientists unravel the complexities of childhood obesity in recent study

recent study conducted by the researchers of University of Notre Dame nas examined have perchased characteristics like loneliness, shyness, chological characteristics like loneliness, shyness, applied with similar characteristics. and anxiety of obese children combined with similar characteristics of their family dynamics affect outcomes of nutritional intervention. Researchers found a network effect that suggested personalised, comprehensive approach to the treatment could improve the results of nutritional interventions. "Psychological characteristics clearly have interactional effects. We can no longer simply view them as individualized risk factors to be assessed. We need to account for the specific characteristics for each child, viewing them as a holistic set for which to plan treatment," said the lead researcher Nitesh Chawla. The researchers conducted the study by analysing the psychological assessments and medical records of 1,541 children who participated in the program. According to the researchers, strong family dynamics, such as concern for behavior and treatment and a sense of protectiveness for the child lead to improved outcomes of nutritional interventions. "This is quantitative evidence of the success and failure of interactions as they relate to the characteristics and interactions between the child and the parent or guardian." said Chawla.

Study suggests early intervention in hyperkalemia can cut mortality by half

new study has suggested that correcting high potassium levels immediately in patients suffering from hyperkalemia can cut the mortality rate in the population by half. The study was published in the journal called American Journal of Emergency Medicine In the study, researchers reviewed around 115000 patients and found that the mortality rate was significantly reduced in such patients. "Because of the increasing risk of hyperkalemia in this population, it is important, as our study showed, to develop protocols that help quickly identify and correct hyperkalemia while the patient is still in the emergency department," said Dr Singer. Tens of thousands of patients that suffer from diseases like heart failure, diabetes, renal failure, and hypertension have higher risks of developing hyper-kalemia. In the future, many therapies that would be deduced to treat these conditions might also contain high potassium levels.