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Editorial

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Iron Deficiency in Women

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It is a well known fact that anaemia can give rise to a range of problems for people who suffer from it.¹ In what follows, I will be concentrating on elaborating some of the subtle health issues surrounding anaemia. Anaemia refers to a condition negatively affecting blood, wherein there is insufficient iron for the production of haemoglobin. On the other hand, when the body is healthy, the red blood cells (RBC) transport the haemoglobin which is the carrier of oxygenated iron to virtually every part of the body. If the iron levels contained in the RBC are deficient, one of the most conspicuous symptoms is acute fatigue. It is the richness of iron in the haemoglobin that makes the RBC look a deep shade of red. The deeper the shade of red, the easier it is to oxygenate blood taken from the lungs and transport it to every cellular receptor site in the body.²

Iron absorption takes place in the intestines from the food and fluid intake.³ From the intestines the iron is transported by a protein called transferrin through your blood to the bone marrow sites, the cellular alter where blood cells are manufactured. Haemoglobin is produced by the assimilation of iron and proteins. Miraculously, the human body has a facility for recycling whatever iron remains from worn out RBC into revitalised ionised protein compounds. Should there be a deficiency of iron in your body, RBC will still be produced, but they will be smaller than usual and deprived of haemoglobin. Although, these petite RBC are still transported to your internal organs and the tissues surrounding them, there is insufficient iron to produce a functional haemoglobin transfer of oxygen.

Here are a Few General Facts about Iron Deficiency

Iron deficiency is one of the most common nutritional disorders, affecting between three to five billion people, which is between half and two-thirds of the world population, now estimated to be more than seven billion people and still growing.⁴

It is estimated that in developed countries such as the USA and Australia one out of every ten women is burdened by heavy menstrual bleeding, leading to iron deficiency. Symptoms of heavy bleeding include: passing large blood clots, having to wear double the usual sanitary protection, or blood flow which leaks through clothing, thereby requiring a change of sanitary pads every two hours.⁵

Even during normal patterns of menstruation women often require twice the amount of iron in their diet as do men.⁵

Iron Deficiency, Women, and Pregnancy

Women are most vulnerable to iron deficiency during and immediately after pregnancy. The iron requirements during pregnancy can change dramatically with each trimester. For example, babies need to store 80% of iron in the first two trimesters. In the final trimester, the baby needs to store another 80% of iron to help it survive the first six months of its life. One approach to solve this problem is to include manufactured folate (otherwise known as folic acid) supplements in the pregnant women's diet if they fail to get enough iron otherwise. However, it is advisable to be cautious regarding the use of folic acid, as studies have shown that it can contribute not only to low birth weight babies, but also lead to spinal bifida, associated with neural tube abnormalities.

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Iron deficiency can also occur due to various forms of bleeding during pregnancy. During the first twelve weeks of pregnancy it is estimated that 20% of women will experience various forms of bleeding, some more serious than others. Miscarriage during this period is commonly associated with bleeding, and any form of persistent bleeding needs to be carefully monitored medically. Since considerable amount of blood can also be lost while giving birth, the iron levels need to be monitored.

In a recent issue of JAMA Paediatrics, a study by Uppsala University it was revealed that when a baby is born, if the clamping of the umbilical cord is delayed for 3 minutes, the incidence and prevalence of iron deficiency can be prevented for up to six months.⁶ The reason for this fascinating occurrence is that when a baby is born, the placenta still retains approximately one third of the child's blood.⁶ If the umbilical cord is clamped immediately, the blood will remain in the placenta and go to waste, although some hospitals prefer to store placenta blood in stem cell banks. What has only recently become clear is that by delaying the clamping of the umbilical cord for as little as three minutes, the majority of the placenta blood can be transfused back to the baby. The amount of returned blood amounts to only half a cup, but given the child's small size, the placental transfusion is tantamount to a transfusion of what would be approximately two litres for an adult.⁶ From this perspective, the amount of blood available to the child is comparable to a complete transfusion.⁶

There are many symptoms which indicate that pregnant women may be deficient in iron, and included amongst this list are the following:

1. Fatigue - the feeling of having lost your vitality and vigour⁷
2. Your skin has lost its vibrant colour and is often pale and greyish⁸
3. Heart palpitations - a condition of irregular cardiac rhythm and accelerated heartbeat⁹
4. The feeling or condition of breathlessness even when the exercise demands you place on yourself are minimal¹⁰
5. Hear ringing in your ears, otherwise medically called "tinnitus"¹¹
6. The edges of your mouth feel dry and torn¹²
7. Your sense of taste seems to have been modified¹³
8. Your nails become brittle and misshapen¹⁴
9. Disruptive concentration - inability to focus on something for a protracted period¹⁵
10. Soreness at the edges of your mouth¹⁶
11. Inflammatory bowel disease (IBD)¹⁷

Other Aspects of Iron Deficiency Worth Knowing

1. According to the World Health Organization (WHO), iron deficiency is particularly common during the older age and is more common amongst elderly individuals with diseases such as chronic kidney disease (CKD), congestive heart failure or IBD.¹⁸
2. Research undertaken by the University of Eastern Finland has established that too much iron in the body can also have adverse health consequences.¹⁹ Their research study revealed that even mildly elevated levels of body iron can initiate an increase in the prevalence and incidence of type 2 diabetes.²⁰
3. Iatrogenic Illness: Hospital-acquired anemia is becoming more common. It is now estimated that one in three patients hospitalized for medical problems experienced a drop in their RBC count due to simply being in the hospital²¹; a more general concept was identified by Ivan Illich decades ago as an "iatrogenic illness", in his book titled, Medical Nemesis.²² This specific form of iatrogenic illness is called "Hospital-acquired anemia", and is defined as having a normal blood count on admission but rapidly developing anemia during the course of hospitalization.²³

"The most severe form of hospital-acquired anemia was independently associated with a 39% increase in the odds of being re-admitted or dying within 30 days after hospital discharge, compared with not developing hospital-acquired anemia. The most severe form was defined as a hematocrit of 27% or less at the time of discharge, occurring in 1.4% of all hospitalizations in the study".²³

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Pregnant Women Never Drink Alone (Part 1)

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INTRODUCTION

Over the course of the next few months, the readers will be provided with a highly topical three part series of articles on the adverse impacts of alcohol on the human foetus, and thus on the offspring who suffer the consequences of the defects they inherit. The first task is to clarify the confusion surrounding the nomenclature used to describe this area of research. For example, there has been a misapprehension that the term 'Foetal Alcohol Syndrome' (FAS) has become antiquated and thus been replaced by the phrase, 'Foetal Alcohol Spectrum Disorders, (FASD). The term FASD actually represents the overarching framework under which the different kinds of alcohol related abnormalities are categorized. FASD should not be construed or used as a clinical diagnosis, and from this it follows that it would be an inappropriate use of the term to diagnose an individual with FASD.¹

Quoting from a 2016 report by the FAS Diagnostic & Prevention Network, Washington D.C., USA, it is made explicit that: "Four diagnoses fall under the umbrella of FASD: FAS, Partial FAS, Static Encephalopathy/Alcohol Exposed (SE/AE) and Neurobehavioral Disorder/Alcohol Exposed (ND/AE). Each year, as many as 40,000 babies are born with one or more of these four disorders, at a cost of over \$4 billion dollars nationwide"². To avoid any confusion, it is imperative to note that far from being phased out, the term 'Foetal Alcohol Syndrome' (FAS) describes the most severe form of the diagnosis and the widest range of abnormalities associated with what has been elsewhere called, "alcohol pregnancies".³ One reason for this is that in addition to its shared diagnoses with the other categories listed, FAS also incorporates diagnoses of foetal alcohol growth defects.

Chart 1 is reproduced here from a 2016 report of the FAS Diagnostic & Prevention Network, Department of Health and Education, Washington, D.C., USA, 2016.²

Chart 1: Four Diagnoses that Fall Under the Umbrella of FASD.

Four Diagnoses under the Umbrella of FASD					
Diagnosis		Growth	FAS Face	Brain	Alcohol
1. FAS	Fetal Alcohol Syndrome	growth	face	severe	alc
2. PFAS	Partial FAS		face	severe	alc
3. SE/AE*	Static Encephalopathy / Alc Exposed			severe	alc
4. ND/AE	Neurobehavioral Disorder / Alc Exposed			moderate	alc

* Also referred to as:

- Alcohol Related Neurodevelopmental Disorder (ARND) or
- Neurodevelopmental Disorder Prenatal Alcohol Exposed (ND-PAE)

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Historical Background of Medical Concern with Alcohol Pregnancies

There has long been a suspicion in the literature of antiquity that the consumption of alcohol by pregnant women was likely to cause severe foetal and birth abnormalities. In the Bible, mothers-to-be were strongly counseled to abstain from drinking wine while they were

pregnant. In the book of Judges, for example, it is written:

13:3 *And the angel of the LORD appeared unto the woman, and said unto her, "Behold now, thou [art] barren, and barest not: but thou shalt conceive, and bear a son."*

13:4 *Now therefore beware, I pray thee, and drink not wine nor strong drink, and eat not any unclean [thing].*⁴

Although, there are many examples of antiquity of intuitive belief in the importance of pregnant women refraining from alcohol consumption, the scientific explorations of alcohol pregnancy were not journeyed until much later.

It was in the mid 1900's that Dr. W.C. Sullivan, who was reputed to have delivered more than one hundred babies, admonished the medical community of the deleterious hazards of alcohol pregnancy. His extensive findings were published, establishing that there was a significantly higher incidence of stillbirth babies, miscarriage, and a statistically significant increase in the incidence of epilepsy amongst their surviving offspring, compared to pregnant women who did not drink whilst pregnant.⁵⁻⁷ In 1957, Rouquette on the same page submitted a doctoral dissertation in Medicine at the University of Paris entitled, "*Influence of Parental Alcoholic Toxiomania on the Physical and Psychic Development of Young Children*". A decade later, the research of Dr. P. Lemoine, and other team researchers, reinforced and extended the conclusions of Rouquette by demonstrating that alcohol pregnancy clearly increases the rates of still birth, along with two new categories of adverse consequences, namely, growth deficiency, and malformations among the children of alcoholic women.⁸⁻¹⁰

Despite these initial investigations into the problem of teratogenesis (deformation of the foetus), there was little attention paid to finding this topic, until an article on the subject by Dr. K.L. Jones and colleagues was published on June 9th, 1973 in the Lancet, one of the most prestigious medical journals in the world. According to the article, sufficient evidence had accrued to demonstrate unequivocally that alcohol pregnancy produced a recognizable pattern of foetal malformation, which should be identified medically as 'Foetal Alcohol Syndrome' (FAS).¹¹⁻¹⁴ Since the publication of this seminal paper, a vast amount of literature has accumulated to establish scientifically the deleterious effects on the foetus caused by alcohol consumption. By 1981, clinical characteristics of FAS had formally been documented to include the following symptoms:

1. Prenatal and postnatal growth deficiency;
2. Central nervous dysfunction;
3. A particular pattern of distortion in relation to facial characteristics;
4. Major organ system malformations: the organ systems affected by FAS include the heart, central nervous system, genitals, skin, liver, kidneys, muscular and skeletal system, and especially the brain¹⁴⁻¹⁷;
5. It is the subsequent pattern and irregularities in the child's growth, coupled with noticeable disruptions of functions of the child's central nervous system that betrays the presence of FAS. In addition to low birth rate, infants with FAS commonly exhibit a smaller head circumference outside the range of the normal, and display bouts of hyper-excitability often leading to epileptic convulsions. Children with FAS are typically tiny with little fat developed under the skin, diminished muscular development and general muscular weakness. Malformations of the optic disk of the eye are common, with many children suffering a moderate or severe reduction in visual sharpness. Similarly, partial deafness is another symptom.¹⁸⁻²¹

Endeavoring to confirm that alcohol is highly toxic and irreparably damaging to the foetus, a research team in 2003 from the Division of Nursing, at the University of Arkansas-Monticello, collected and analyzed every available paper in relation to the actual biological degradation caused by FAS. Their investigation of these studies affirmed that alcohol is definitely a teratogen, and demonstrated that the more alcohol a woman consumes throughout her pregnancy, the higher the risk of the seriousness of the birth defects and abnormalities identified earlier by Dr. Jones.²² However, it is of paramount importance to realize that alcohol binges and intoxication can also impact indirectly on the medical integrity of a woman's future pregnancy, even before she becomes pregnant. To comprehend why this is so, it is salutary to remember that the ovaries are two diminutive organs located on each side of the woman's pelvis, and they produce and contain the female gamete cells known as an ova or the oocytes. Because the ovaries are sustained by blood supply, they are not immune to alcohol toxification. Indeed, evidence has now accumulated to show that episodes of binge drinking and intoxication, particularly those episodes that lead to and prolong the presence of alcohol in the bloodstream, have the potential to damage even the unfertilized eggs stored in the ovaries of women.²³⁻²⁶ This revelation is of extraordinary significance, and could plausibly explain a large portion of the births of children with a range of disabilities. Additional research needs to be conducted to determine the extent to which this phenomenon might adversely be affecting childbirth.

The range of deformations caused by FAS is truly lamentable and could possibly have been prevented or at least ameliorated with appropriate health education programs designed to help both women (and men), to realize and respect the gravity of excessive alcohol consumption both during and outside the context of pregnancy.

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If You Think Alcohol Consumption is Not Harmful, Think Again! (Part 2)

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INTRODUCTION

Ironically, when family and friends announce that one of their female members or a partnered couple is pregnant, the first thing that happens is that someone in a privileged position proposes that each member of the group fills a glass with champagne, or some fine wine that has been tabled, and lifts the glass high, with well-intentioned joyous praise for the happy couple. This scenario is in essence a commentary on a deeply embedded sociocultural tradition that is difficult to extirpate, as we shall see, even in the name of good health. Indeed, it is paradoxical that we toast the happy couple and their future offspring to good health, when what we nonchalantly pour into our glasses are the very alcoholic beverages which are among the most deleterious threats to a women's health. Another problem is that such toasting-rituals extend far beyond the confines of wedding celebrations to a whole host of social events that have traditionally served to provide excuses for 'ritualistic drinking'. For example, consider the fact that sporting competitions of many kinds, especially Elite Motorsport Car Competitions, end up with the successful drivers on the winners' platform spraying and drenching each other with expensive Champagne. By reiterating these celebratory rituals, Motorsport Heroes in competitions across the globe implicitly legitimate such drinking behaviour, thereby encouraging their spectators to swallow as much liquor as they can as a vicarious way of celebrating these events. It is clear that we live in a society which laughs off educational advice about the problems alcohol causes not only to the drinkers themselves, but also to innocent adults and children who are infelicitously and all too often fatally impacted by someone else's drunk driving.

A BRIEF SKETCH OF THE GLOBAL ALCOHOL PROBLEM

To illustrate briefly how massive the alcohol problem is worldwide consider that approximately 3.3 million deaths were attributable to alcohol-related events of a wide variety in 2016 such as deaths from alcohol-impaired driving, alcohol-related diseases, homicide, suicide, rape, and other criminal behaviour.¹ Nearly 1.3 million people die in road crashes each year, on average 3,287 deaths a day. An additional 20-50 million people are injured or disabled. Globally, more than half of all road traffic deaths occur amongst young adults ages 15-44.¹ In 2015 road crashes were the leading cause of death amongst young people ages 15-29, and the second leading cause of death worldwide was amongst young children whose ages range from 5-14.¹

Each year nearly 400,000 people under 25 die on the world's roads, on average over 1,000 a day. It was estimated in 2015 that road crashes cost USD \$518 billion globally, and in the same year have cost low and middle-income countries USD \$65 billion annually, exceeding the total amount received in the developmental assistance received by all these countries combined.² Now that we have an idea of the problem of alcohol at the International level, let us now consider the seriousness of America's National Hangover.

ALCOHOL USE DISORDER (AUD) IN THE UNITED STATES: EXPLORING THE PROBLEMS

Problem drinking that becomes deleterious is given medical diagnosis which is now known as "alcohol use disorder" or AUD.³ AUD is regarded as a chronic relapsing brain disease characterised by compulsive alcohol use, loss of control over alcohol intake, and negatively emotional

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states of behaviour when alcohol is withheld by others from the person with AUD, or the person with AUD endeavours to deny himself or herself of alcohol for any of a number of reasons, including therapy.³ In 2015, an estimated 16 million people in the United States were afflicted with AUD. Approximately 6.2 percent or 15.1 million adults in the United States ages 18 and older were also identified as having AUD. This includes 9.8 million men and 5.3 million women. Adolescents can be diagnosed with AUD as well, and in 2015, an estimated 623,000 adolescents ages 12-17 had AUD.³

The abuse of alcohol (AUD) has led to a panoply of alcohol related medical and other events such as road accidents which have cost the United States 249 billion dollars.¹ It is estimated that AUD, resulting in large part from preventable drinking binges has been responsible for three quarters of the total cost of that 249 billion dollars.² In 2012 it was reported that 5.1 percent of the burden of alcohol-related disease and injury worldwide amounted to 139 million disability-adjusted life-years.¹ In 2014 the World Health Organisation (WHO) reported that alcohol consumption contributed to more than 200 diseases and injury-related health conditions, including a number of different cancers, liver cirrhosis, renal dysfunction and injuries from accidents, falls, and fights, to name only a few. (3) According to the 2015 National Survey on Drug Use and Health (NSDUH), 5.1 million adults, aged 12 to 20 (13.4 percent of males, closely followed by 13.3 of females) have suffered from binge drinking leading to AUD.⁴ Of this number, approximately 1.3 million adults in 2015 received protracted medical treatment for AUD, carried out at myriad specialised alcohol rehabilitation facilities across America.⁵ This figure included 898,000 men, and 417,000 women,⁶ all of whom (by way of their doctors, families and friends) had come to the realisation that their inveterate drinking was sabotaging not just their health, but their lives, and the lives of others. The magnitude of the numbers canvassed here indicates that AUD is a far more serious problem than the American public has yet come to understand.

AUD AND THE GROWING PROBLEM OF ADOLESCENT FEMALE ALCOHOL ABUSE

According to the 2015 NSDUH, an estimated 623,000 adolescents between the ages of 12-17 have afflicted themselves with AUD.⁷ Although we observed above that of the 15.1 million adults with AUD, men outnumbered women by 481 thousand, indicating that the generational propensity of these females favoured light drinking, rather than heavy drinking leading to intoxication. However, amongst adolescents in the 12-17 age group, the ratio is reversed.⁸ The statistics show that in 2015 the number of adolescent girls with AUD reached 325,000, compared to 298,000 males also suffering from AUD.⁹ If we extrapolate from these current figures and project the comparative ratio of adolescent male and female drinking behaviour into their eventual shift into the 18 and over category, the number of female drinkers is likely to exceed the number of male drinkers significantly.

Let us now summarise the finer details of the role played in US road fatalities played alcohol-related accidents:

1) Recent data provided by the US National Safety Council estimates that in 2014 there were 32,675 people who died on American roads in motor vehicle accidents. Of this number 9,967 deaths were identified as having been caused by alcohol-impaired drivers. In 2015 it is reckoned that 1.1 million drivers in the US were arrested for alcohol-impaired driving, 16% of whom were under the influence of narcotics,¹⁰ while the total number of road deaths from car accidents in the same year increased to 35,092. Of that number it has been recorded that 10,265 people died in alcohol-impaired driving crashes, accounting for nearly one-third (29%) of all traffic-related deaths in the United States¹¹ The US National Safety Council recently published statistics showing that in 2016 the number of road deaths increased yet again to 40,200 fatalities. This represents an increase of 6% more road deaths than was witnessed in the previous calculation of road accident mortality rates in 2015, and a rise of 14 percent more, when compared to the census mortality rates recorded in 2014.

It has been calculated that in 2014 in the US, 88,000 men and women died from alcohol-related causes.¹¹ This being so, alcohol proved to be the fourth leading preventable cause of death that year in the US amongst those males and females in the age group of 15-49 years.¹²

2) Given that the statistics from 2015 betray that females from 12 to 17 now have considerably more AUD problematic episodes than do men, and since nearly three years have passed since the 2015 survey, there is a greater risk that more women may be needlessly deceased or seriously injured in road accidents in 2017 than are men.¹³ As more of the AUD females take to the road, the statistics reveal that more men are endeavouring to escape from it. The motto here is 'if you want a serious drink, you had better have a first think'. Our roads are dangerous enough without increasing the number of AUD drivers.¹³

3) It is estimated that there were more women in 2016 driving on US roads than there were men. During the course of 2012, road registry offices across the US revealed that more women have driver's licenses than do men.¹³ Having ascertained in 2012 that there are now more females with AUD from the ages of 12-17 than men, and that presently more women are licensed for driving than are men, it is likely that more AUD women who were once under age to drive, will progressively become old enough to acquire a driver's licence, and take to the roads.

It is salutary to remind ourselves that as observed above, the number of total road deaths has increased in 2015 and 2016. According to The National Safety Council, along with the 38,300 people who were killed in 2015, it is estimated that another 4.4 million people were injured on US roads. As was made explicit earlier, in 2016 the US witnessed a rise in motor vehicle deaths to 40,200, thus up 6% from the 2015 figures, and up 14% from the 2014 fatality statistics.¹⁴ The collateral damage associated with these 40,200 fatalities, however, led to an estimated cost of property damage, and personal injuries and disabilities of \$432.5 billion, a total which exceeds the 2914 figures by a staggering 14%. It is incontestable that drink driving is still a major problem. Women need to be alert to the fact that although men have more road fatalities than women, more women are involved in considerably more crashes than are men. In a study of US road accidents undertaken by researchers at the University of Michigan, it was shown that of the 6.5 million car accidents between 1998 and 2007, women drivers were involved in 68.1% of these, compared to only 31.9% of men. Given that men drove 60% of the time, while women drove only 40% of the overall road time, it is surprising that women had so many more accidents and injuries than men, despite the fact that men were driving on the roads 20% more than women. In short more men died on US roads during this period than women, but women had more accidents and were injured more than men.¹⁵

My next editorial will examine the effect of alcohol on the brain with regard to the loss of female inhibition.

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What Women Should Know About Alcohol Abuse and the Sexual Exploitation of Females of all Ages (Part 3)

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The aim of this paper is to raise our level of awareness on the egregious blight which alcohol abuse has afflicted upon the United States. Given the limitations of space, I shall divide the topic into two specific areas of alcohol abuse: 1) the sexual abuse of children, and 2) the sexual abuse of adolescents in the age group of 17-27.

CHILD SEXUAL ABUSE: PHYSICAL AND EMOTIONAL ABUSE, INCLUDING RAPE, AND NEGLECT

Child sexual abuse is a type of maltreatment, violation, and exploitation that refers to the involvement of the child in sexual activity to provide sexual gratification or financial benefit to the perpetrator. It includes contact for sexual purposes, molestation, statutory rape, prostitution, pornography, exposure, incest, or other sexually exploitative activities.¹

American children are suffering from a hidden epidemic of child abuse and neglect. National child abuse estimates are well known for being under-reported. The 2015 Child Maltreatment Report from The Children's Bureau, published in January 2017 shows an increase in child abuse referrals from 3.6 million to 4 million. The number of children involved subsequently increased from 6.6 million to 7.2 million. The report also indicates an increase in child death from abuse and neglect from 1,580 in 2014 to 1670 in 2015. Some reports estimate that in 2016, child abuse fatalities in the US have risen to at least 1,740, and possibly even higher.^{2,3}

According to a 2015 report by the Center for National Child Abuse Statistics, the United States has one of the worst records for child abuse amongst all industrialized nations, losing on average almost five children⁴ every day to child abuse and neglect.^{1,5} These figures are three times more than in the neighbouring country, Canada, and a shocking 11 times greater than Italy.⁶ Four million general US child maltreatment referral reports were received in 2015,^{5,6} but there were 7.2 million specifically identified child abuse reports in 2016.^{2,5,7} It is estimated that in 2015, 207,000 children received foster care services due to abusive treatment in their own homes.⁵ Statistics reveal that 17.2% of these victims were physically abused, while 8.4% were sexually abused; in the same year, 6.9% of victims were psychologically maltreated.^{5,8}

The highest rate of child abuse in children under one was a staggering 24.2% per 1,000, amounting to one quarter of the entire population of that same demographic group of infants under one year.^{1,5}

In 2015, just over one-quarter (27%) of children younger than 3 years were abused either physically or sexually, most of whom were females.^{2,5,6} It has been observed that 43.9% of child abuse victims die from physical abuse.⁵ Statistics reveal that 49.4% of children who die from child abuse are under one year old,^{1,5} and 74.8% of child fatalities are under the age of 3 years.^{1,5}

Almost five children die every day from physical and sexual abuse,^{1,5} and 80% of child fatalities involve at least one parent, predominantly mothers suffering from postnatal depre-

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sion and care-taking frustration.^{2,4,5} 72.9% of the child abuse victims die from neglect.⁵

ALCOHOL ABUSE AND SEXUAL ABUSE OF YOUNG CHILDREN

According to other surveys, approximately 60,000 children are sexually abused, most of whom are girls.^{4,5,9} One in every nine girls under the age of 18, and one in every fifty three boys under the age of 18 are predicted to experience sexual assault by an adult. In other words, six times as many girls under 18 are forcibly violated than are young boys in the same age group.^{10,11} In this sense, it is clear that young girls are the victims who suffer most from the heinous sexual assaults inflicted on them by male perpetrators. To understand why the issue of childhood and adolescent sexual assault is such a problem, we need to identify the aetiology or source of these hideous crimes.

Consider that more than 10% of U.S. children live with at least one parent with a severe alcohol affliction; this parent more likely to be a man than a women. Given that alcohol abuse has a deleterious effect on the nerve centres of the brain such as the cerebellum, frontal lobes, the hippocampus and the cerebral cortex, each of which has a role to play in self control, sound decision-making, memory retention, and inhibition, the adverse impact on the brain can be progressively devastating, whenever these dimensions of the brain are overrun with alcohol, the compromise of each of these areas and the loss of self control which results in very dangerous situations.^{12,13} A man who is sober and thus reliable and socially responsible can, when intoxicated, transform into a completely different person who is uncontrollably aggressive. Unfortunately, one aspect of this transformation leads to *sexual aggressiveness*, so much so that the violation of members of his own family, not to mention strangers, becomes a pathway to the destruction of the lives of innocent children in his own family. Even other children playing in parks or busy malls are vulnerable and can just as easily be physically or sexually assaulted by a person who has in the moments at hand become an abusive alcoholic.

ADOLESCENTS AND COLLEGE STUDENTS AT PERIL

According to the 2015 National Survey on Drug Use and Health (NSDUH), an estimated 623,000 adolescents aged 12-17 (2.5 percent of this age group) were afflicted with alcohol use disorder (AUD).^{2,5} This number includes 298,000 males (2.3 percent of males in this age group), and 325,000 females (2.7 percent of the females in this age group).^{3,9,14} Amongst college students, the alcohol problem is rife, just as are its consequences. For example, in 2015, 696,000 students between the age group of 18 and 24 were reportedly assaulted by another student or friend who was intoxicated.^{15,16} It is estimated that in 2015, 97,000 students between the ages of 18 and 24 reported experiencing alcohol-related sexual assault or date rape.^{13,17}

So where does this take us? What we see is that 60% of sexual abuse cases of women and children are directly associated with alcohol abuse.^{9,13,18} Since alcohol consumption negatively influences inhibition, violent crimes are often perpetrated while the criminal is under the influence of alcohol. These crimes include homicide, all types of assault, especially domestic violence on women, coupled with sexual abuse and rape. Both of these are inflicted on adolescents from 12-17, mostly females.^{19,20} About 500,000 of domestic violence reports in 2015, were associated with alcohol abuse consumption. Of these, almost 70% happen in and around the hours of 11 pm, and 20% included the use of a weapon, lethal or otherwise.^{16,20} The sexual assault of adolescents and college going females has been called a *Silent Epidemic*, because although it occurs at high rates, it is rarely reported to the authorities.^{3,18} Several reasons contribute to the under-reporting of sexual assault cases as many victims do not tell others about the assault, because they fear that they will not be believed or will be derogated, which, according to research findings, is a common and valid concern.^{11,12} Other victims who may have been intoxicated may not remember or realize that they have actually experienced a legally defined rape or sexual assault, because the incident does not fit the prototypic scenario of "stranger rape."^{21,22}

In 70% of cases that involve child abuse, the abuser (parent or guardian) was reported to have an alcohol or drug abuse problem. With regards to intimate partner violence, about 65% reported that during the act of violence, the abuser was strongly under the influence of alcohol. This equates to more than 450,000 reports of intimate partner violence and rape each year that was caused by alcohol abuse.^{3,13}

If ever we are to ameliorate this scourge upon our families and communities, we have to confront the horror and acknowledge the human degradation that alcohol abuse has caused. I have endeavoured in this article to give you something very sober to think about, so as to teach your family about the issues discussed here and remind them to 'think before they drink'.

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Alcohol Abuse, Women, and Domestic Violence (Part 4)

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INTRODUCTION

To the shame of our society statistics from as early as 2003 were revealed by the U.S. Bureau of Justice reporting that in 2001, 588,490 non-fatal assaults were perpetrated against women by their current or former husband, or partner.¹ These women were beaten by the very men they believed in and loved. As early as 1996, a study by the American Psychological Association (APA) announced that one out of every three women in America will experience at least one physical assault by their partner during adulthood, and 92% of American women surveyed in 2003 ranked domestic violence and sexual assault as amongst their major concerns.² The health-related costs of what has come to be called, 'Intimate Partner Violence' (IPV) exceeded 5.8 Billion U.S. dollars a year. Of this total, nearly 4.1 billion U.S. dollars represented the costs for direct medical and mental healthcare, with productivity losses estimated to be 1.8 billion US dollars.³ It is estimated that approximately 50% of all incidents of domestic violence are due to alcohol abuse, and in a survey of in excess of 2000 American couples, the rate of IPV was 15 times higher in households where the husbands were often intoxicated, as opposed to those husbands who were never drunk.⁴ The World Health Organization (WHO) describes the levels of violence experienced by the world's women as 'a global public health problem of epidemic proportions, requiring urgent action'. We were in the midst of a crisis of injustice and inequity then, and we still are as far as domestic violence is concerned. As long as we fail to resolve the problem of alcohol abuse, we will have inadvertently preserved the ineluctability of drunken assaults on the women they call their wives or intimate partners, while pretending the spurious posture of a veritable partner of his loving wife. The time has truly come to extirpate the violent assaults of men who make their intimate partners suffer the terror of their alcoholic rage.

UNDERSTANDING THE DEPTH OF ALCOHOL ABUSE AND VIOLENCE UPON WOMEN

The World Health Organization (WHO) defines intimate partner violence (IPV) as 'any behaviour within an intimate relationship that causes physical, psychological or sexual harm'.⁵ WHO recently estimated that the global prevalence of physical and/or sexual IPV to be 30% among ever-partnered women.⁵

Most female victims of completed rape (78.7%) experienced their first rape before the age of 25, and almost half (40.4%) experienced their first completed rape before age 18 (28.3% between 11 and 17 years old and 12.1% at or before the age of 10).¹ It is also estimated that at least 1.4 million women have suffered domestic abuse in their U.S. homes in 2015, and that nearly half a million women refrain from reporting their own experiences of abuse for any of a number of personal reasons, including such fearful horrors as threats to their own lives.⁶ Rates of IPV are highest among women, particularly younger women and those in partnered relationships.^{6,8} While some men experience partner violence themselves, women are three to five times more likely to report being beaten, choked, sexually assaulted, or threatened with a gun or knife by their partner or ex-partner. These statistics do not take into consideration the large number of women who refuse to make their IPV abuses known.^{4,9}

Alcohol use, especially heavy drinking and drinking large amounts per occasion, is

linked to male-to-female partner violence.⁵ Across different cultures, violence is more severe when one or both partners (most often the male partner) has been drinking.⁶ Research has clearly established that alcohol plays an integral role in domestic contexts of violent behaviour.⁷ In addition, across the globe, IPV is also a power issue, reflecting the disparities in the power relationships which emerge between men and women.⁸ Although, alcohol has been shown to augment aggressive behaviour in both men and women, the inclination to engage in violent behaviour is twice as strong for men.⁹ This being so, alcohol abuse by men has been determined to have a much greater role to play in the aetiology of IPV perpetration than is featured by women who drink.¹⁰

The impacts of IPV on women's health are well-documented and include not only in regard to physical harm and injury (e.g., broken ribs and limbs, dental devastation, facial disfigurement, loss of sight from eye battering, chronic gastrointestinal disruption, and induced gynecological problems).¹¹ The wide array of physical abuse is accompanied by psychological impacts (e.g., depression, PTSD, anxiety), often leading to addiction to substance abuse.¹² "The evidence is irrefutable—women's experiences of domestic violence are connected in complex and reciprocal ways with poor mental health and substance use problems".¹³

IS IT TOO LATE TO SAVE YOUR ALCOHOL - MARINATED BRAIN?

Alcohol is thought to influence aggressive behaviour through detrimental effects on the drinker's cognitive brain functions, problem-solving abilities, narrowing the capacity to focus attention and make rational decisions, and increasing their willingness to take risks.¹⁴ In the context of an intimate couple, when one of the partners has been drinking, he or she will be less able to resolve conflicts constructively, because of (a) the effects of alcohol on cognitive functioning and problem-solving; (b) the drinking partner may have a disproportionate response to a perceived slight, insult or other apparent wrong done by the partner and be less likely to see the partner's perspective or the situational and environmental factors that may have affected the partner's behaviour (because of the narrowing of their focus of attention on a specific action of the partner related to their drinking); (c) the drinking partner may engage in highly provocative or aggressive behaviour without thinking about the consequences of his or her actions because of alcohol's effects on brain components associated with risk-taking; and, (d) for male partners in particular, perceived slights or aggression by the partner may be interpreted as a threat to their masculinity.¹⁵ When both partners have been drinking, the role of alcohol may be even greater, because of the potential for alcohol to affect the brain centres governing reflective thinking, self control, restraint and judgement.¹⁶ This is one of the reasons that some people afflicted by alcohol abuse will intentionally binge drink with the aim of perpetrating a violent assault on their partner, with the prepared excuse that the alcohol was to blame and not them.¹⁵ Substance abuse has been found to co-occur in 40-60% of IPV incidents across various studies. Several lines of evidence suggest that substance use/abuse plays a facilitative role in IPV by precipitating or exacerbating violent dispositions waiting to be unleashed.¹⁷

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Editorial

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Potential Efficacy of Anti-PD-1 or PD-L1 Antibody Treatments for Gynecologic Cancers

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Programmed cell death-1 (PD-1; CD279) is an immunosuppressive co-inhibitory molecule that belongs to the CD28 family of receptors on T-cells. It was discovered by Ishida et al in 1992.¹ The most important peripheral regulatory pathway is the interaction between the PD-1 receptor, expressed on T-cells, and programmed cell death ligands-1 and 2 (PD-L1 and PD-L2) on the cancer cell surface.² This immune checkpoint exists in a normal physiological state to protect against autoimmunity and inflammation. In a neoplastic state, dysfunction of these immune checkpoint proteins can lead to tumor tolerance and eventually allow tumors to 'escape' from the immune system. PD-1 blockage enhances the proliferation of transferred T-cells at the tumor site. In addition, the combination of adoptive T-cell transfer and anti-PD-1 antibody results in significant inhibition of tumor progression.³ These therapeutic effects of PD-1 blockage require the INF- γ signal. Targeting the molecules that regulate the immune response using the new drug nivolumab, an anti-PD-1 antibody has been the subject of much research and has yielded some promising and exciting results.⁴⁻⁶

The effects of anti-PD-1 treatment have been reported in a study of 296 patients, including patients with melanoma, renal cancer and lung cancer,⁷ with cumulative response rates in these patients of 28%, 27% and 18%, respectively.

However, there have been few reports of anti-PD-1 or anti-PD-L1 treatments for gynecologic cancers. Hamanishi et al treated 20 patients with platinum-resistant ovarian cancer with an intravenous infusion of an anti-PD-1 antibody (nivolumab) every 2 weeks at 1 or 3 mg/kg.⁸ The best overall response was 15%, which included 2 patients who had a durable complete response (2CR; 1 partial response (PR)). The disease control rate in all 20 patients was 45%. Varga et al reported on 26 ovarian cancer patients treated with an anti-PD-1 antibody (pembrolizumab) every 2 weeks at 10 mg/kg for up to 2 years.⁹ The best overall response was 11.5% (3/26; 1 CR, 2 PR), and 23.1% (6/26) of the patients had evidence of tumor reduction. Brahmer et al reported on 17 ovarian cancer patients treated with an anti-PD-L1 antibody (MS-936559).¹⁰ An objective response (CR or PR) was observed in 1 of 17 (5.9%; 1 PR) with ovarian cancer. Gulley et al reported on 184 ovarian cancer patients treated with an anti-PD-L1 antibody (avelumab),¹¹ and objective responses were observed in 22 (12%; 1 CR, 21 PR).

There are few reports concerning the efficacy of anti-PD-L1/PD-1 immunotherapies for endometrial cancer. Immunohistochemically, 61.3% of human endometrial cancers are positive for PD-1, which is almost exclusively found in the tumor-infiltrating immune cells.¹² By contrast, PD-1 is not expressed in the tumor cells or normal endometrial tissues. PD-1 expression in the tumor-infiltrating immune cells is more frequently found in moderately and poorly-differentiated endometrial cancers and non-endometrioid (type II) cancers than in well-differentiated endometrial cancers and endometrioid (type I) cancers. These findings suggest a better outcome for future treatment with anti-PD-1 antibody-based therapies against the subgroups of endometrial cancers with a high expression of PD-1. However, anti-PD-1 antibodies have yet to be applied to the treatment of patients with endometrial cancer.

Recently, a trial to identify predictive markers for the assessment of PD-1 expression

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was performed. The genomic assessment of an exceptional response to anti-PD-1 antibodies can provide important insight into a patient's potential response.¹³ An analysis of The Cancer Genome Atlas (TCGA) revealed that the presence of DNA polymerase epsilon (POLE) mutations was associated with a high mutational burden and the elevated expression of several immune checkpoint genes.¹⁴ Approximately 10% of endometrial cancers analyzed by the TCGA analyses harbored POLE mutations. These data suggest that endometrial cancers with POLE mutations are good candidates for immune checkpoint inhibitor therapy.¹³

Regarding uterine cervical cancer, the PD-L1 expression was immunohistochemically detected in 12 (44.4%) of 27 patients with stage IB1-IIA cervical cancer.¹⁵ However, anti-PD-1 antibody has not been used to treat patients with cervical cancer. In a single case of cervical small cell carcinoma, which is a rare subtype of cervical cancer characterized by an aggressive behavior, a patient with advanced chemo-refractory disease was treated with a tumor vaccine combined with 1 mg/kg of anti-PD-1 antibody (pembrolizumab). She showed a sharp decrease in the size of the liver-metastasized lesion to less than its maximum diameter.¹⁶

Several points remain to be addressed with this therapy, such as the identification of reliable predictors of responsiveness to anti-PD-1 or PD-L1 antibody treatments and the determination of the optimum clinical setting of gynecologic cancer. We also need to clarify whether these drugs are most effective as monotherapy or in combination with other agents.

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Breast Cancer Screening and the Asian American and Pacific Islander Communities

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Years before the new breast cancer screening was established, whenever you hear about breast cancer, the buzz words was “early detection saves lives.” Translating this hype is easy: when breast cancer was found in its earliest stages of development, the five-year survival rate is 98% for certain groups.

At what age and how often should women start breast cancer annual screening was hotly debated in recent years, guidelines from the American Cancer Website changed from recommending annual mammography screening from age 40 to 45. And from every year to every other year starting at age 50. While the US Preventive Services Task Force (USPSTF) listed their recommendation for breast cancer screening on their website especially mammography as: The USPSTF recommends biennial screening mammography for women 50-74 years.

Only 59% Asian American women over 40 years and older in the U.S. have had a mammogram in 2015, according to the CDC Health, United State 2016 report. Asian women has one of the lower rate of screening among all racial/ethnic groups even though breast cancer is the most common cancer diagnosis among Asian and Pacific Islander women.

I have spent most of my career helping to educate women throughout the Asian community about breast cancer and helping them through a cancer diagnosis and into survivorship. But it has been a hard road with a lot of tragedy along the way, especially as that road travels through communities of color. For us, cancer is still “the big C” and that 98% survival statistic is a pipe dream. Numerous barriers stand between us and a mammogram, the best method of early detection, such as the lack of health insurance, a limited command of English, cultural and social taboos surrounding our breasts, and a lack of awareness of the screening to detect breast cancer early. Too often, Asian women who do not pursue screening told me that this is because they fear finding a lump, knowing that there is no cure to breast cancer. For some it’s even worse – they know they wouldn’t be able to afford treatment if they did find one.

When Congress continue to fight among themselves and no action is taken to ensure access to healthcare for all in the U.S., we will continue to see women dying needlessly from breast cancer due to the limited access to treatment.

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Editorial

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The Medicalisation of Menstruation: Its Scope and Limits

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INTRODUCTION

Conventional western medicine has very determinately ‘technologized’ its approach to health and the human body. While there are many benefits evinced from this conventional orientation, there are also disconcerting liabilities. One dimension of the emergent problem is that while medical science is quick to extol the virtues of its chemical and surgical discoveries, it is irreconcilably slow in recanting the indiscretions of their adverse side effects. Lamentably, there exists an imbalance in the level of propaganda dominance of conventional medicine that marginalises the legitimate role which alternative medicine is actually capable of playing within the traditional medical framework. This phenomenon represents an imbalance which badly needs to be redressed. Although, there is no doubt that conventional medicine makes an enormously valuable contribution to health, it is salutary to remind everyone that it does not provide a complete approach to health. Without understanding the value of the philosophical foundations of alternative modalities of healing, the potential of conventional medical treatment is self-stultifying. When a health issue arises, for example, the professional medical reply is all too often tantamount to a technological response, whereby normal physiological functions such as observable discrepancies in hormonal rhythms and menstrual cycle lengths become medicalised and prescriptively regulated by years, or even a lifetime of drug therapy.

The female’s body is inundated with prescriptive chemicals, while her conventional medical doctor fails to discern the extent to which her otherwise normal hormonal patterns are ironically being exacerbated and disrupted by the very medical drugs the doctor is prescribing and she is taking. Before anyone can comprehend the vital place of alternative therapy in managing the variant symptoms of premenstrual syndrome, people need to understand that menstruation and menopause are dimensions of the same dynamically evolving continuum of physiological phenomena. Similarly, many orthodox medical approaches to menopause are predicated on the presumption that hormonal imbalances can best be treated as medical problems. Let us now endeavour to elaborate the central issues more determinately.

MENSTRUATION

It is well known that the maturation of a female’s reproductive organs begins during puberty. It is estimated on average that women menstruate 500 times during their life, and that the average menstrual cycle is 28 days.¹ According to Dr. Tom Weschler, the 28 days menstrual cycle is a misleading myth, as menstruation cycles can vary from 24 to 37 days. The 28 days point of reference has misguided many women who are led to believe that they have something wrong with them. They thus mistakenly construe what is a natural phenomenon as a serious medical problem, because their cycles fall outside 28 days. They then become worried and seek the advice of a doctor who *medicalises* what is actually a natural physiological phenomenon and treats the so-called problem with drugs to regularise the period to 28 days. One of the commonly used drugs for this purpose is the birth control pill, now known to have severely adverse effects, depending upon the dosage and allergic reaction some women have to the drug.¹

Other girls, who currently begin puberty at 12 and 13 years old, are often made to worry about early puberty, sometimes pointed out by their mothers who are eager to report that,

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unlike their daughters, they did not commence menstruation until they were 15 or 16 years of age. Dr. Christiane Northrup, MD, and past President of the American Holistic Medical Association (AHMA), argues that one reason girls now commence menstruation at a much earlier age is a dietary, and not a medical problem. In her view, it is the high fat diets our children now eat that have caused the shift to earlier puberty at 12 to 13 years old.² The commencement of menstruation is conditioned by the level of estrogen present in the body, and high fat diets are now known to act as catalysts for increased estrogen production, and in turn the earlier commencement of menstruation.

Dr. Northrup also points out that 50% of the chickens and beef animals in the US are hormonally-enhanced to make them grow faster, suggesting that the onset of menstruation could be effected by the residue hormones in the chicken and cattle people eat.² What needs to be done to prevent early menstruation is to monitor the amount of high fats parents allow their children to eat.

In an earlier book, co-authored with Dr. John Ashton, another problem associated with the early commencement of menstruation is addressed. The height of a child is to a certain extent dependent upon the commencement of menstruation. The reason for this is that research has shown that once the onset of menstruation commences, there are approximately only two years left during which time height growth takes place. So, the younger a girl is when she commences puberty, the shorter she is likely to be, and the older a girl is when she commences puberty, the taller she is likely to be. This is because the later the commencement of menstruation, the more time she has to gain height before the height limiting conditions associated with puberty are activated.³

DISCUSSION

The excess of estrogen taken in with the meats consumed can cause difficulty if the level of *estrogen* in the blood supersedes the level of progesterone in the blood. The syndrome is now known as 'Estrogen-Dominance'. When this hormonal correlation is disrupted, women are likely to experience acute premenstrual syndrome (PMS), endometriosis, fibroids, severe mood swings, ovarian cysts, infertility, excessive bleeding, and fibrocystic breast disease, to name the primary elements involved.⁴

The coordinated hormonal interplay amongst the ovaries, the pituitary gland, and the hypothalamus are the predominant factors regulating the monthly menstrual cycle. Estrogen levels are thus critical to the biological processes required for reproduction. Estrogen is secreted at the outset of the menstrual cycle by the eggs, of which there are normally 10-20, growing in the ovaries.⁴ One crucial role played by the estrogen at this stage is to prompt the lining of the uterus to thicken, thus facilitating the success of fertilisation. The estrogen is also responsible for the galvanisation of a cervical fluid that enhances the swift passage of sperm through the cervical opening, passing from the ovaries for fertilisation in the fallopian tubes. It is at this point that the balance between estrogen and progesterone production is critical. The estrogen levels diminish, while the progesterone levels increase to form a dense cervical mucous plug in the cervix to prevent any bacterial contamination and the loss of sperm. The endometrium becomes enriched in blood to maximise the chances of the sperm's fertilisation of the egg. Should the fertilisation fail, then the amalgam of hormonal levels are reduced so that some of the endometrial layer is shed with the corresponding release of blood which is the process of menstruation.⁵

In next article, the issues surrounding menopause will be addressed. In essence menopause signals the end of menstruation, unless there are other complications. Suggestions as to how women can most efficaciously manage their menopause symptoms will be examined.

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Editorial

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From Menstruation to Menopause: Have We Medicalised the Physiology of Normalcy? (Part 1)

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UNDERSTANDING THE RELATIONSHIP BETWEEN MENSTRUATION AND MENOPAUSE

Although, there are exceptions to the rule, women generally experience ‘menopause’ between the ages of 48 to 54, within which time the cessation of all menstrual bleeding becomes a reality. However, many women find that their bodies desist menstruating in their late thirties (premature menopause) or in their early forties.¹ The commencement of menopause is triggered when the ovaries relinquish their responsibility for the production of estrogen. ‘Estrogen’ is an important sex hormone that is primarily produced in the ovaries, and one of its main functions is to regulate menstrual cycles, and moderate the inception of menopause.²

Interestingly, a small portion of the female’s estrogen supply is produced in the body’s fat cells. It is estrogen that hormonally prepares the uterus to accommodate the fertilised egg, and this remarkable phenomenon happens when estrogen radically stimulates the thickness of the uterine lining, so as to stabilise the implanting capacity of the fertilised egg.³

Three types of estrogen exist in the female’s body: the first of these is referred to as ‘estradiol’. It is regarded as the most potent of the three types, and it is manufactured in the ovaries. The next of these estrogen constituents is called ‘estrone’, which is produced from estradiol, and the final component of estrogen is known as ‘estriol’. It is also produced in the ovaries, but in much smaller quantities than either of the other two.⁴ The subtle balance of the estrogen amalgam of these three constituents helps to reduce the incidence of heart attack, slows the rate of bone loss, reduces vaginal dryness, improves skin tone, and it can regulate mood swings, in the context of both menstruation and menopause. With the onset of menopause, estrogen levels diminish markedly, but they do not drop to Zero, as some estrogen is still produced in the fat cells which continue to provide the supporting tissue around the ovaries. By utilising precursors produced by the adrenals, estrogen is also formed in the intestinal tract.⁵ It is worth contemplating that one reason why women tend to gain weight after menopause is linked with the body’s capacity to confiscate even the small pools of estrogen made available by hormonal reservoirs of fat cells in the supporting tissue around the ovaries, and in the intestinal tract.

FOCUSING ON THE TRANSITION FROM MENSTRUATION TO MENOPAUSE

Early or premature menopause can happen due to any of a range of factors, including the following:

- Although rare, the body’s immune system which normally fights off diseases, may mistakenly attack the ovaries and keep them from producing the female hormones which regulate menstruation.⁶ Other autoimmune diseases such as thyroid disease, rheumatoid arthritis, and even chronic fatigue syndrome may also disrupt the otherwise regular patterns of menstrual balance and harmony. For example, research has demonstrated that women with myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) suffer from persistent and extreme tiredness, headache, feelings of chronic weakness, muscle and joint pain, memory loss, insomnia, and marginalised eyesight. Women with these problems are significantly more likely

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to experience early or premature menopause.⁷

- Women who smoke are more likely to experience menopause as early as two or three years before non-smokers, depending on the length of duration which characterise the woman's smoking habit. In addition, women who have smoked for ten years or more may also be afflicted with more severe and painful menopause symptoms such as acute stomach discomfort and intense muscle cramps.⁵ Moreover, research also shows that women who are long-term smokers will be not only succumb to premature menopause, but they will die about two years earlier than those women who are not smokers.⁸
- Chemotherapy or pelvic radiation treatments for cancer are notorious for inducing premature menopause. The problem is that chemotherapy treatments tend to damage women's ovaries, thereby causing a women's menstruation periods to cease unpredictability at any time. The resultant menstrual cessation may persist for just a while, or it may shut down the menstrual system forever.⁹ Chemotherapy may also adversely affect the fertility-organs and hormonal production mechanisms associated with pregnancy, such that a woman may not be able to get pregnant again, or never be able to get pregnant a first time. Although it is to admitted that chemotherapy or radiation do not necessarily cause infertility or unanticipated menopause, the older a woman is at the time of chemotherapy or radiation, the more likely it is that she will experience acute menopause and permanent infertility.¹⁰
- More dramatic interventions such as the surgical removal of both ovaries, called a bilateral oophorectomy are likely to precipitate menopausal symptoms almost immediately. After this surgery when both the women's ovaries are discarded, her menstrual periods will literally be eliminated, and her hormonal levels will immediately be significantly diminished. In many cases intense menopausal symptoms become manifest and hot flashes will be greatly magnified, while sexual desire will dwindle and quickly be depleted, thereby necessitating the implementation of hormone therapy.¹¹
- It sometimes happens that women will confront the problem of incessant bleeding in the context of a menstrual cycle or independently. In such cases it is generally recounted that a hysterectomy is the best way to stop the bleeding by the complete removal of the uterus, though in most cases women patients are fortuitously allowed to keep their ovaries intact. This being so, it follows that personal pregnancy is no longer an option, in as much as women who have undergone a hysterectomy will no longer have periods, or the capacity to become pregnant. However, given that the ovaries have been preserved, women who have had their uterus removed experience the almost immediate symptoms of menopause. Due to the fact that their ovaries are still functional, and their ovaries seem, almost miraculously, to produce an array of the very hormones which largely govern the extent to which the symptoms of menopause will infiltrate the women's body. In addition, if a women who has had to undergo the hysterectomy is young enough, she might still have to confront the experience of menopause a couple of years earlier than would otherwise have been anticipated.¹²
- Women with a family history of chronic disease which serves to act as a catalyst for menopause are more likely to experience an early or premature menopause than are those women without disease-disposing menopausal intrusions.
- Research has revealed that women suffering medical conditions of HIV whose infectious parameters are intractable, or ineffectively contained by the medicines being prescribed, the woman involved is very likely to experience the acute symptoms of early or premature menopause. It has also been shown that women who are dealing with HIV are far more likely to have more severe and debilitating hot flashes than women who are not afflicted with the virus.¹³
- One of the more recent medical discoveries related to menopause is that a surprising number of women experience the symptoms of early and premature menopause because they have a congenital deficiency such that they are born without certain chromosomes responsible for the endocrinial and physiological management of menopause. Similarly, some women have been found to have problems with the 'menopausally-related' and designated chromosomes that signal the production of endocrinial messaging which misguidedly prompts early episodes of menopause . For example, women with the condition called Turner's syndrome are born without all or part of one X chromosome. As a consequence, their ovaries fail to get appropriately structured at birth.¹⁴ This being so, the regulation of menstrual cycles for some women, including the scheduled sequencing of menopausal episodes are being seriously disrupted.

In PART 2 of this series, I will in the next issue of WHOJ address the issues associated with the efficacy of estrogen therapy for menopausal women.

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