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MEDICAL REVIEW JOURNAL



RESEARCH FROM THE MEMBERS

UPDATE ON WHAT HAS HAPPENED IN THE PAST MONTHS

EPSOM COLLEGE IN MALAYSIA

Medical Review Society

EPSOM COLLEGE IN MALAYSIA

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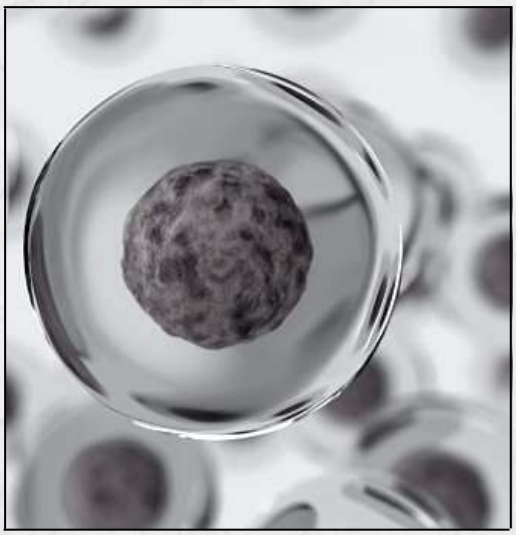
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Written by : Bernice Tan

STEM CELL-BASED REGENERATIVE MEDICINE IN PLASTIC SURGERY

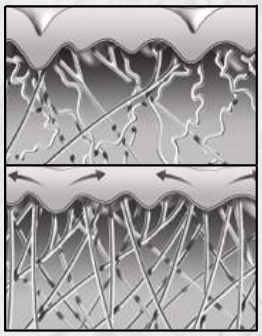
Plastic surgery (cosmetic surgery) is becoming more in demand in the global market. The Global Cosmetic Surgery Market Size is projected to reach USD 21.97 billion over the course of the years between 2017 and 2023. The increase in demand is due to a desire to maintain youth, and the growth of social acceptance of cosmetic procedures. This field's main objective is to improve self-esteem, moulding patients to achieve the better versions of themselves. In this beauty field, stem cells are attractive candidates for the functional restoration of defective tissue. This article highlights the potential advantages and downsides of using these cells in surgeries.



*Stem Cells are functionally known to self-renew and generate different cells with a more restricted ability. They change their properties to match the changing growth and regeneration demand.

Did you know?

Aesthetic Stem Cells (ASCs)
AKA Autologous fat grafting. These procedures involve injecting fat (source is the same person) into compartments underneath our skin layer. Enrichment of fats with ASCs were reported to improve overall volume following an injection in the upper arm. However, its clinical use is still questionable & has not been thoroughly investigated.



before (top) & after (bottom) collagen remodelling

Anti-Aging Therapies
These procedures aim to delay the degeneration of the skin and the supporting system with it. Laser treatment helps in collagen remodeling alongside cytokines (a type of protein) & growth factors promote collagen synthesis. ASCs have the ability to produce cytokines.

BENEFITS AND DRAWBACKS

Positives such as ASCs have an essential role in regenerative and cosmetic medicine, but with standard regulations of using a certain volume of ASCs per treatment. Volume and improving fat graft retention in the breast following breast cancer resection, decreasing the palpability of wrinkles with fat grafts, skin ulcers, diabetic wounds & improving skin quality of irradiated breasts.

Negatives such as practitioners and surgeons in unregulated stem cell clinics are treating conditions they normally wouldn't in their practice. (includes dermatologists & ophthalmologists). Over-emphasizing benefits of stem cell usages in aesthetic medicine without scientific evidence can deplete the public's faith in medicine. There's also a risk of potential contamination during stem cell extraction & modification. Lastly, stem cells are similar to malignant cancer stem cells. It has been proven that regular stem cells can undergo spontaneous mutation to become cancerous.

To conclude, the plastic surgery market is driven by corporate medicine methods, characterized as unsubstantiated & unsupported claims putting people's lives at stake. Stem cells hold the effective benefit & upperhand in cosmetic surgery, however, society, especially plastic surgeons have to be vigilant to protect patient safety & provide the best quality of care.

COVID-19 Treatment: Remdesivir

by : Cadence Ong

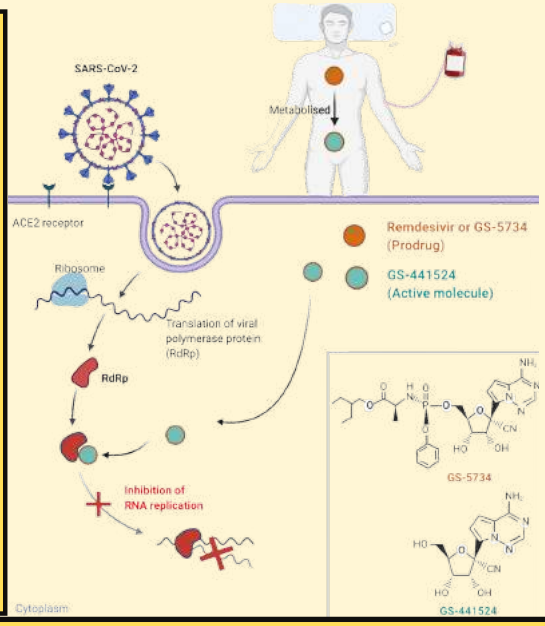


THIS PANDEMIC COSTS A LOT OF LIVES AND UNFORTUNATELY, THERE IS STILL NO CURE NOW. VACCINATIONS ARE INVENTED TO LOWER THE RISK OF BEING AFFECTED BY THE FATAL DISEASE.



HOWEVER, IT CANNOT CURE THOSE WHO HAVE ALREADY BEEN AFFECTED. TO FLATTEN THE CURVE OF THE DEATH RATE CAUSED BY COVID-19, THE AUTHORITIES ARE TRYING TO FIGURE OUT THE BEST TREATMENT OF COVID-19 TO REDUCE ITS IMPACT ON PEOPLE'S LIFE. FOUND TO HAVE MODESTLY SPEEDED UP THE RECOVERY TIME OF COVID-19 PATIENTS.

THIS DRUG IS AN INTRAVENOUS (THROUGH A VEIN) NUCLEOTIDE PRODRUG OF AN ADENOSINE ANALOG. IT BINDS TO THE VIRAL RNA-DEPENDENT RNA POLYMERASE AND INHIBITS VIRAL REPLICATION VIA PREMATURE TERMINATION OF RNA TRANSCRIPTION. IT IS CLAIMED TO HAVE DEMONSTRATED IN VITRO ACTIVITY AGAINST SARS-COV-2.

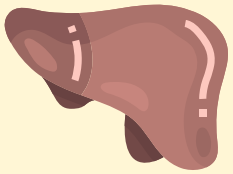


REMDESIVIR HAS BEEN APPROVED BY THE FOOD AND DRUG ADMINISTRATION (FDA) AS THE TREATMENT OF COVID-19 FOR ADULTS AND CHILDREN AGE 12 AND ABOVE AND WEIGHING AT LEAST 88 POUNDS. IT HAS ALSO RECEIVED AN EMERGENCY USE AUTHORISATION TO TREAT CHILDREN WHO ARE BELOW 12 YEARS OF AGE OR HAVE A LOW BODY WEIGHT.

WHILE REMDESIVIR BRINGS POSITIVE IMPACTS ON THE RECOVERY OF COVID-19, THERE ARE SIDE EFFECTS TOO.



INCREASE IN PROTHROMBIN TIME



ELEVATED TRANSAMINASE LEVELS



NAUSEA

OTHER ALLERGIC REACTIONS INCLUDE:



SWELLING AROUND THE EYES, LIPS AND/OR UNDER THE SKIN, RASH,



CHANGES IN BLOOD PRESSURE AND HEART RATE, LOW BLOOD OXYGEN LEVEL AND SHORTNESS OF BREATH

EVEN THOUGH FDA HAS APPROVED THE USAGE OF REMDESIVIR IN TREATING COVID-19 HOSPITALISED PATIENTS, WHO'S GUIDELINE DEVELOPMENT GROUP RECOMMENDED AGAINST USING IT AS A TREATMENT.





THIS IS BECAUSE THE GROUP FOUND THAT REMDESIVIR DID NOT INCREASE THE SURVIVAL BASED ON THE CURRENT CLINICAL TRIAL DATA AVAILABLE AT THAT TIME. IT APPEARED TO GAVE LITTLE OR NO EFFECT AS INDICATED BY THE DURATION OF HOSPITAL STAY, INITIATION OF VENTILATION AS WELL AS OVERALL MORTALITY. HOWEVER, THE NATIONAL INSTITUTES OF HEALTH (NIH) AND THE INFECTIOUS DISEASES SOCIETY OF AMERICA DO INCLUDE THIS DRUG IN THEIR RECOMMENDED CLINICAL GUIDELINES FOR CERTAIN HOSPITALISED COVID-19 PATIENTS AND NIH DID NOT RESPOND TO A QUESTION ABOUT WHETHER THE NIH'S GUIDANCE WOULD CHANGE AFTER THE WHO UPDATE

4 EVEN IF REMDESIVIR IS NOT A TOTAL SAVIOUR OF MEDICATION, MANY INFECTIOUS DISEASE PHYSICIANS STILL BELIEVE THAT IT MAY HELP SOME PATIENTS, ESPECIALLY IF IT CAN BE DELIVERED RELATIVELY EARLY IN THE COURSE OF ONE'S ILLNESS

Can HIV be Transmitted through Kissing?

The only way a person can contract HIV is through direct contact with body fluids that contain HIV. These are primary modes of HIV transmission:



Sexual transmission

HIV transmission can occur during anal or vaginal sex without the use of a condom. HIV transmission during sex occurs when body fluids containing HIV come into direct contact with mucous membranes or damaged tissue. Anal sex has a higher risk of HIV transmission than vaginal sex because the tissues that line the anus are more prone to damage and bleeding. Its important to note that effective HIV treatment can reduce a person's viral load to undetectable levels. This means that people who are taking HIV medications correctly and achieve and maintain an undetectable viral load have effectively no risk of transmitting HIV through sex.



Needles

HIV can live in a used needle for up to 42 days so its best to avoid sharing needles with anyone.

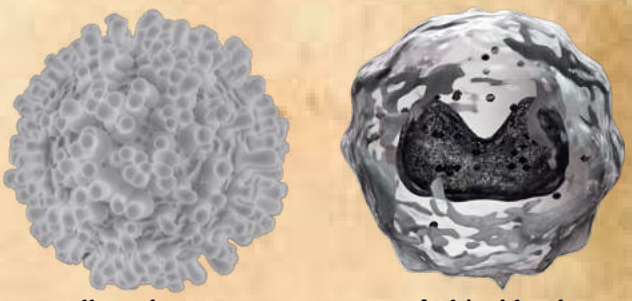
Pregnancy and breastfeeding

A woman can pass on HIV to a fetus during pregnancy, birth, or breastfeeding. However, HIV treatment significantly lowers the risk of transmitting HIV to the baby.

HIV cannot survive long outside of the human body. This means that people can't contract HIV from touching objects or surfaces that a person with HIV handles. Nor can someone transmit HIV through holding hands, hugging, or touching other people. Its important to remember that HIV transmission requires an exchange of body fluids that contain HIV. HIV transmission also don't occur through: mutual masturbation, sharing food or drinks sharing toilet seats, dishes, or other objects

There are no known cases of anyone contracting HIV from a tattoo or body piercings. However, it is possible to contract HIV from a reused needle or improperly sanitized equipment.

To answer the topic question, HIV cannot be transmitted through saliva or kissing because the virus is not present in saliva. HIV can enter the body through damaged areas in the mucous membranes lining the vagina and the rectum. The mouth also contains mucous membranes, but they do not contain cells that are vulnerable to HIV. Secretory leukocyte protease inhibitor (SLPI) is an enzyme present in saliva, mucus, and seminal fluid. SLPI prevents HIV from infecting monocytes and T cells.



T cells and Monocytes are types of white blood cells and part of the immune system.

Saliva contains much higher concentrations of SLPI than vaginal and rectal fluids. This may explain why HIV is mostly present in body fluids other than saliva. Kissing a person living with HIV will not put someone at risk of contracting HIV. According to the Centers for Disease Control (CDC) Trusted Source, "a person cannot transmit HIV through saliva or closed-mouth kissing". ***However, the CDC also state Trusted Source that in extremely rare cases, a person can transmit HIV through "deep, open-mouth kissing if both partners have sores or bleeding gums and blood from the HIV-positive partner gets into the bloodstream of the HIV-negative partner."***

By: Aloysius

Premenstrual Syndrome

Narita Sora

What is it?



Its a common condition that affects women's emotions, physical health, and behaviour during certain days of the menstrual cycle, generally just before their menses.

Symptoms?

There are about 200 different types of symptoms caused by PMS. Excessive stress, unhealthy meals, other illnesses such as fever, and personality boost symptoms badly.

Common ones:

- Acne
- Anxiety
- Depression
- Sadness
- Fatigue
- Headaches
- Diarrhea
- Abdominal pain
- Food cravings
- Gaining weight
- Backache





There are no actual specific reasons why PMS occurs. According to one account, PMS occurs by "oestrogen" and "progesterone" which are are hormones that are important for sexual and reproductive development in women.

There are other ailments (illnesses) that have similar symptoms.

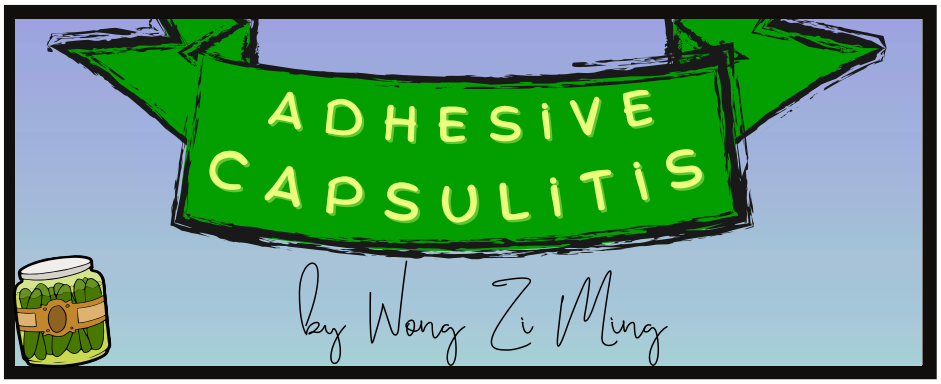
1. PMDD (Premenstrual Dysphoric Disorder)
2. Dysmenorrhea
3. Menopause

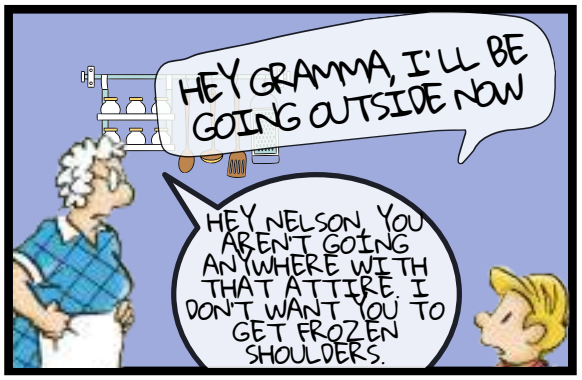
How to cure PMS?

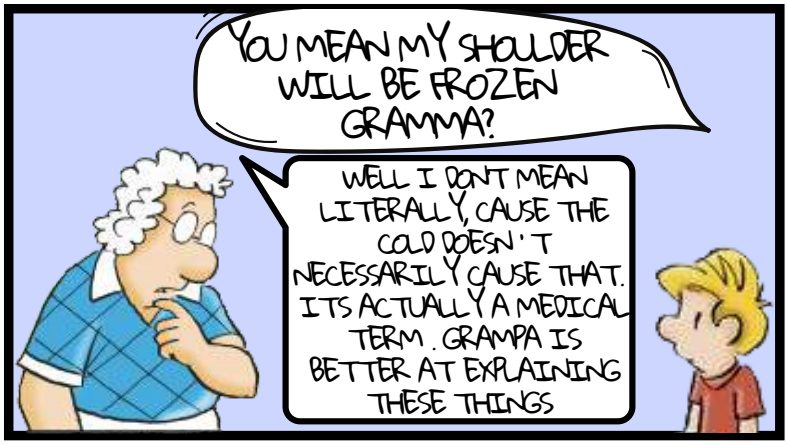
- Balanced diet
- It is better to take food which contains Vitamin E, Vitamin B6, Calcium, Magnesium
- Less caffeine, alcohol, and salt
- Light exercise
- No smoking

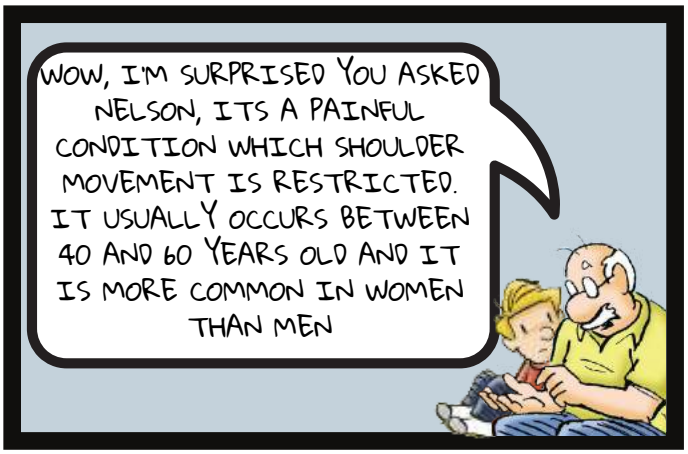


If symptoms are not eased off, it is better to <u>see a doctor</u>


ADHESIVE CAPSULITIS
by Wong Zi Ming


HEY GRAMMA, I'LL BE GOING OUTSIDE NOW
HEY NELSON, YOU AREN'T GOING ANYWHERE WITH THAT ATTIRE. I DON'T WANT YOU TO GET FROZEN SHOULDERS.

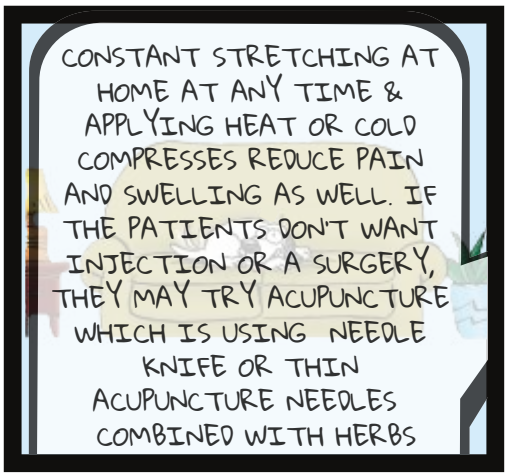

YOU MEAN MY SHOULDER WILL BE FROZEN GRAMMA?
WELL I DONT MEAN LITERALLY, CAUSE THE COLD DOESN'T NECESSARILY CAUSE THAT. ITS ACTUALLY A MEDICAL TERM. GRAMPA IS BETTER AT EXPLAINING THESE THINGS


WOW, I'M SURPRISED YOU ASKED NELSON, ITS A PAINFUL CONDITION WHICH SHOULDER MOVEMENT IS RESTRICTED. IT USUALLY OCCURS BETWEEN 40 AND 60 YEARS OLD AND IT IS MORE COMMON IN WOMEN THAN MEN


ITS CAUSED BY INFLAMMATION WHICH MEANS THERES PAIN AND IRRITATION) OF TISSUES SURROUNDING A JOINT IN THE SHOULDER. IT MAKES SHOULDER HARD TO MOVE & IS THEREFORE "FROZEN".


IT SOUNDS REALLY BAD GRAMPA, HOW ARE THEY TREATED THEN?


MEDICINE DRUGS, TO REDUCE PAIN AND SWELLING. FOR MORE SEVERE PAIN, A SPECIFIC DRUG KNOWN SUCH AS CORTISONE IS USED AND INJECTED DIRECTLY INTO THE SHOULDER JOINT.


CONSTANT STRETCHING AT HOME AT ANY TIME & APPLYING HEAT OR COLD COMPRESSES REDUCE PAIN AND SWELLING AS WELL. IF THE PATIENTS DON'T WANT INJECTION OR A SURGERY, THEY MAY TRY ACUPUNCTURE WHICH IS USING NEEDLE KNIFE OR THIN ACUPUNCTURE NEEDLES COMBINED WITH HERBS


THANKS FOR TELLING ME GRAMPA! NOW I KNOW THE SNOW WON'T DIRECTLY CAUSE IT. AS LONG AS YOU HAVE A SHOULDER INJURY, THEN YOU MAY GET IT, ALSO MAY I GO OUT TO THE SNOW NOW?
THATS RIGHT, DEAR NELSON. YES YOU MAY, JUST GET DRESSED IN SOME WARM CLOTHES

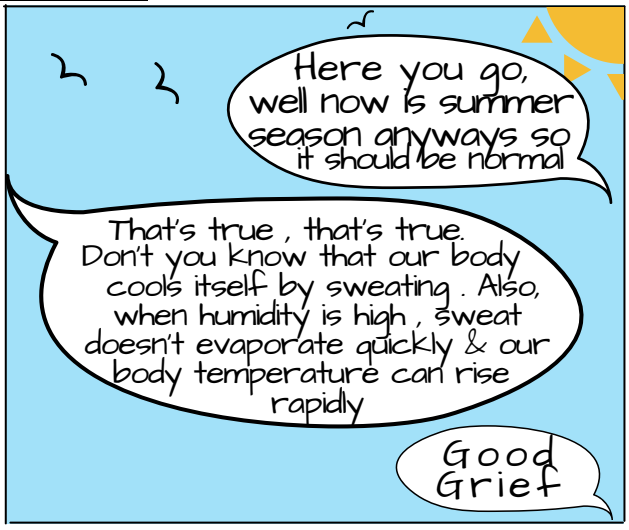

YES! I CAN FINALLY GO OUT NOW

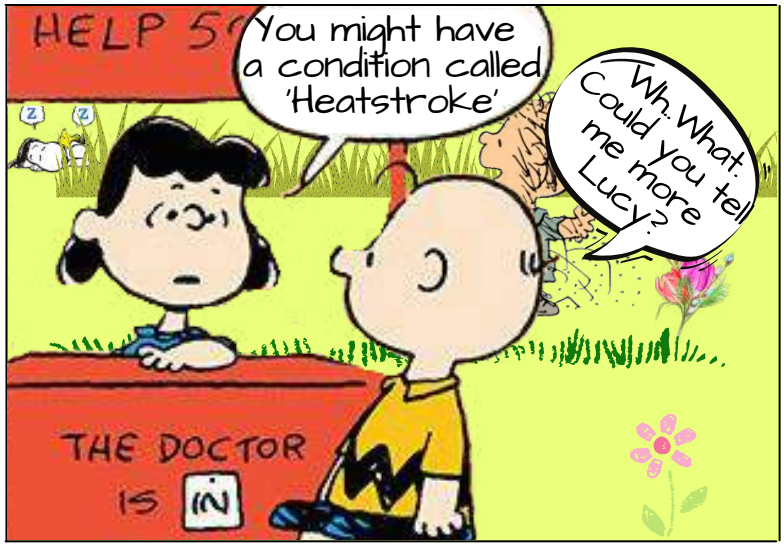

ANYWAYS, GRAMPA, CAN YOU HELP ME DIG UP THAT SNOWBANK THERE?
WH..WHY NELSON?


I STORED SOME OF MY MONEY IN THERE YESTERDAY.

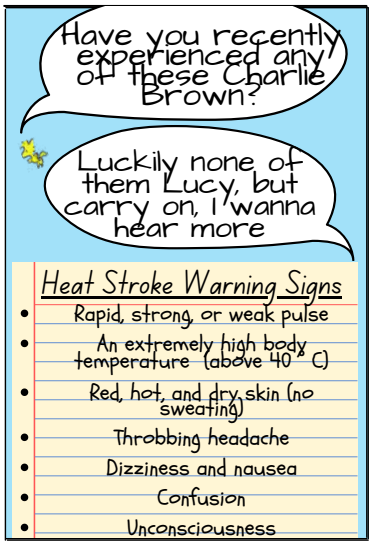
Heatstrokes



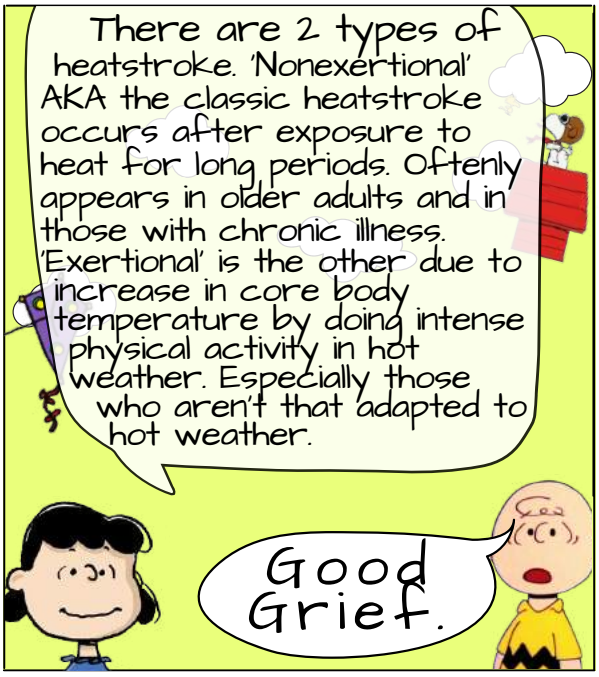


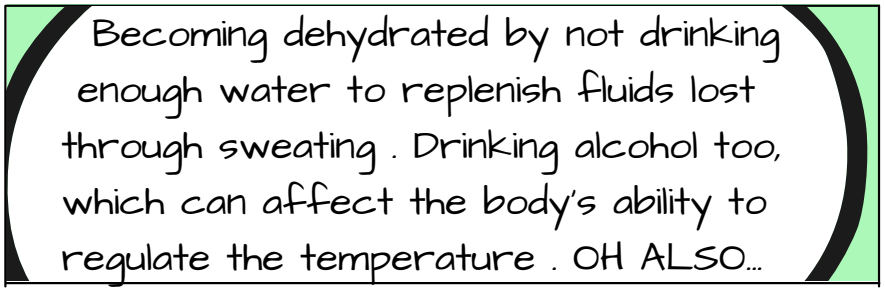




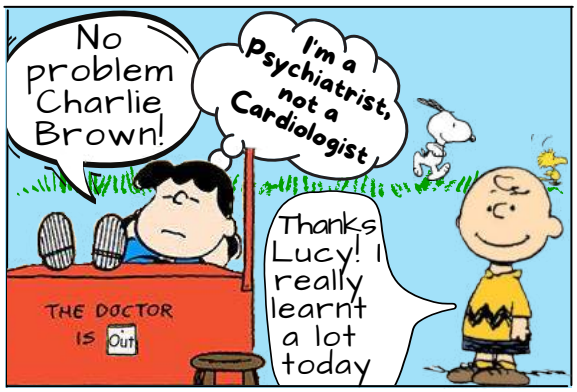














Term 1 Events



12th November

ORGAN DONATION TALK SHOW



6th December

SECOND PODCAST

1. **SECOND JOURNAL**
   13th September
2. **ORGAN DONATION TALK SHOW**
   12th November
3. **FIRST PODCAST**
   26th November
4. **SECOND PODCAST**
   6th December







Hello everyone, Its great to see you here on this page! We hope you readers enjoyed the journal this month. The members sacrificed their time to research these journals so we hope you will enjoy them all. Thank you all again for reading and we hope you'll continue to support the Medical Review Society! =)

benjamin lim