

HealthyLiving

Cancer Care Centre Inc.
Quarterly Program and Newsletter

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A good daily habit.
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The leading provider of supportive cancer care in South Australia, since 1985

Cancer Care Centre Inc is a community based, not-for-profit organisation offering a wide range of complementary care to support cancer patients and their families. Complementary care refers to a variety of holistic health services which enhance wellbeing on physical, emotional, mental and

spiritual levels. Areas specific to cancer care include interpersonal support such as counselling and support groups; stress management approaches such as meditation and massage and nutritional approaches such as diet and nutrients. Research has demonstrated that complementary care improves cancer patients'

wellbeing and may assist them to better tolerate their medical treatment for optimal outcomes. Cancer Care Centre Inc staff consist of a variety of dedicated health care professionals and trained volunteers – many of whom have been affected by cancer in their own lives. We support individuals and families to empower

themselves as they travel the cancer journey. We provide an environment which complements medical treatment as clients work towards wellbeing.

To keep up to date with what's happening at the Centre, visit our website www.cancercarecentre.org.au or follow us on Facebook.


**Cancer
CareCentre**
a place of help, hope and understanding

Cancer Care Centre Inc
76 Edmund Ave,
Unley SA 5061
Call (08) 8272 2411
cancercarecentre.org.au



Christmas is just around the corner

Why not treat someone you know with a gift voucher for one of our therapies? For the member price of just \$40.00 (\$85 non-member) your special person will be cared for with a tailored professional massage by one of our qualified therapists. We also have copies of Di Cornelius' Healthy Plant Based Cooking for sale for only \$25.

Please note: The Centre will be closed from Friday 22 December to Tuesday 2 January 2018. We wish all our readers a peaceful and safe holiday season.

Donations

The Centre would like to thank the following people for their generosity:

Carl Hopkins	Gerard McCabe	Kristine Spencer
Lee Hutton	Christine McLeod	Eddie Tweedale
Ann Ireland	Dominie Nelson	Patricia Tyerman
Angela Jones	Helen Osborn	Malcolm Warrick
Carmel Jungfer	Bradley Poole	Kevin Welsh
Helene Kenner	Malcolm Potticary	Merry Wickes
Adrian Kenney	Malcolm Read	Dorothy Williams
Kirsty Klose	Dianne Reade	Brian & Gwenyth Young
Judith Langdon	Vanda Rounsefell	Family & Friends of Tony Hamdorf
Malgorzata Langman	Paul Schulz	Supporters of Lee Hutton & Kerrie Monaghan Afternoon Tea
Barry Lienert	B Smith	
Anne Mangarelli	Josephine Smith	
Alex May	Julie Sorel	

Thank you to our Cancer Care Champions:

Elena Voss
Malcolm Potticary
Ray & Jocelyn Nicholson
Alex May



Donations made after 15 September 2017 will appear in the next edition of Healthy Living

Like us on Facebook and follow us on Twitter



Remember to like Cancer Care Centre on Facebook and spread the word to friends.



@CANCER_CARE

Note: The Cancer Care Centre is a support and resource organisation and provides information of a general nature. It does not recommend any specific treatments.

Dear Healthy Living readers

I write these articles at least a month before Healthy Living is published so any comment about cold winter weather will seem out of place in October. But we have worked our way through another winter, which is always a challenging time with colds and sore throats being a problem when around people with compromised immune systems. And we continue to work on the re-organisation of tasks at the Centre under the leadership of our Centre Co-ordinator, Leanne Isaacson.

In the financial year just closed we have been most fortunate to receive three substantial donations and many of you will see the wonderful effect these have had on our financial position when the accounts are released at the AGM on September 20th.

It is a pleasure for the Board to consider carefully how this transformation can best be used for the benefit of those with cancer and we expect some enhancements to our offerings over the next few months.

Giving is a wonderful thing to do and we are so fortunate at the Centre that we continue to receive many regular donations that enable Leanne and our volunteers to carry on their work. We appeal to our supporters at Christmas time and at the end of each financial year for donations and I hope that the 2017 Christmas Appeal finds you all in generous spirit!

The Cancer Care Centre is a substantial facility which only thrives with the generosity of our volunteers who give so generously of their time and often their specialist expertise. Our home is a lovely villa on the Unley Green and we really are 'a place of help, hope and understanding' so we would love to have more of those with cancer come to visit us to see if they'd like to take up any of our offerings.

So please – spread the word amongst your family, friends and work places so that at some difficult moments someone might say 'yes – I remember about that place in Unley; I'll go and have a look'.

Kind regards,

Ian Budenberg
Chairman



Please give generously

What your donation will do for Cancer Care Centre and its clients:

With a fully tax deductible donation of:

- \$100** help purchase books for the library collection
- \$200** help purchase organic ingredients for our vegetarian cooking course
- \$300** help subsidize the cost of 'Journey to Wellness' course
- \$600** help mail out an edition of Healthy Living

These are just a few of the costs that can be covered by a fully tax deductible donation.

You can make your contribution by:

- becoming a Cancer Care Champion
- donation – by completing the 'cut out' slip on the next page and post-marking the envelope 'reply paid' (donations are 100% tax deductible)
- bequest – by contacting the Centre Coordinator for details
- in memoriam donation – by naming the Cancer Care Centre.

Your gift to the Cancer Care Centre will assist the support and care of cancer sufferers and their carers.

Thank you for supporting the Cancer Care Centre.



Tax Deductible Gift

Title _____

First name _____

Surname _____

Address _____

Suburb _____

Postcode _____

Email _____

I wish my gift to be:

- ☐ anonymous
- ☐ publicly acknowledged
(name only is published)

I would like to donate \$ _____ by _____

☐ Credit Card

- ☐ Visa ☐ Mastercard

Card number _____

Expiry date _____

Name on card _____

Signature _____

☐ Cheque / Money order payable to:

Cancer Care Centre and posted to:
Centre Coordinator
Cancer Care Centre
Reply Paid 83842
76 Edmund Ave Unley SA 5061

☐ Direct credit to:

BSB: 105 011
Account number: 075 271 440
Account name: Cancer Care Centre Inc
Reference: Your name

☐ Telephone:

For credit card payment by telephone
please ring the Centre Coordinator on
(08) 8373 1470
Monday – Friday, 10.00am – 4.00pm

**Thank you for your generosity.
Your support is greatly appreciated.**

ABN 73 640 293 985



New Support Group for Carers and Family

Does someone in your family have cancer?
Or do you have a friend with cancer? You may
be involved with helping them while they are
undergoing treatment. It is important to look
after yourself while you are caring for someone
else. Many people in this position find a support
group very helpful during this time.

There are many benefits to attending a support group for family and friends:

Being with people who understand your responsibilities - you may find most of
your friends or other family members don't understand what it is like to be a carer.
Often, talking to other people in your situation can be quite a relief to share your
experiences.

Getting emotional support – a support group gives you the opportunity to talk about
the variety of emotions you may be feeling. Often carers can experience emotions
such as sadness, frustration, anger, depression or guilt. All these emotions are
perfectly normal reactions to being a carer.

Information sharing – by sharing carer experiences you often will learn new skills
and information that may be helpful in your role as a carer to your family member
or friend.

It is important to ensure you practice good self-care when you are a carer to someone.
Please refer to the article on page 13 on ways you can do this.

Here at the Centre we also offer a number of other support groups for our members:
a Men's Support Group which meets on a Tuesday evening, a Young Women's Support
Group which meets Monday evenings, and a Women's Support Group that holds
meetings on Thursday mornings. We are also the venue for the Melanoma Support
Group which meets monthly on a Monday morning.



CYCLE CAMBODIA FOR CANCER CARE CENTRE 2018



take on an amazing challenge!

Take part in an incredible adventure of a lifetime. Cycle Cambodia from Siem Reap to Phnom Penh, immerse yourself in traditional Khmer culture as you cycle across exquisite countryside, into traditional communities and bustling cities. Explore impressive jungle temples and gaze upon the majestic spires of Angkor Wat.

Positions are now available for this unforgettable fundraising project in March 2018. Join a team of wonderful people, all united by their sense of adventure and dedication to making a difference.

If you'd like to know more - including how proceeds from this project support Flinders Foundation and Cancer Care Centre -

call Cancer Care Centre for more information.

Ph: 8272 2411

register your interest TODAY
spots are limited and will fill fast





Are the Sugars in Fruit Dangerous?

By Dr Ian Gawler

Like your fruit? Well, fruit sugars are getting really bad press in some circles. Many are confused. Some health practitioners advise their clients to avoid fruit, even carbohydrates, because they are of the opinion they act just like ordinary sugar and have all the same bad health consequences.

So what is the fact of the matter? In this article, we find out what science has to say and how it relates to the recommendations I have been making for decades.

What happens if we were to drink a white sugar based drink like Lemonade or Coke? (a can of either can have around 7 teaspoons of sugar in it!!!). Fact is we know we would get a big spike in blood sugar within the first hour; what we call hyper-glycaemia. This in turn would cause an immediate insulin release; a big one.

Insulin's job, amongst other things is to regulate blood sugar, so quite quickly it does flatten that blood sugar spike. However, and here is the nub of the problem, whereas blood sugar is metabolized fast, insulin is long acting. So, what happens after a sugar hit is as the insulin continues to drop our blood sugar levels, there is no new sugar being ingested, so blood sugar levels continue to drop, soon going below normal and we end up with what we call hypo-glycaemia.

But it does not stop there. Because our blood sugar levels are now below normal, the body thinks we are starving and releases first glycogen and later when the glycogen is used up, fat into our system. To be more explicit, good research now suggests excess sugar promotes the development of cardiovascular disease (CVD) and type 2 diabetes (T2DM) both directly and indirectly. The direct pathway involves the unregulated hepatic uptake and metabolism of fructose, leading to liver lipid accumulation,

dyslipidaemia, decreased insulin sensitivity and increased uric acid levels. These facts are why the fructose in ordinary sugar and high fructose corn syrup has been compared to alcohol in its potential for harm.

So what then about the source of natural fructose, fruit?

Recent research has supplied the answer, and the rationale.

The effects of two diets were compared; one based on added sources of fructose only, the other added sources plus fruit.

Total fructose levels were restricted in both diets and the effects compared. The diet that included the fruit did significantly better.

People who only had added sugar, as in sugar from corn syrup and the like, did badly; those who included fruit did well. The added sugar diet, not the one with fruit in it was associated with poor liver function, high blood pressure and hypertension. Those with fruit in their diets lost weight, those without it, did not.

Where it seems confusion arises is that some think sugar from concentrated sources acts in the body the same way as sugars in more natural, more complex forms such as in fruit. So, some consider that if we eat watermelon we would get the same blood sugar spike with the same unhelpful consequences as a sugar drink. Right? Wrong!

This is the key point.

The sugar in fruit behaves differently in the body when compared to concentrated sugars like the white sugar and corn syrup that is added to so many "foods" these days.

When tested, even if we add fruit to straight sugar, there is no spike, no hypo-glycaemia and no surge of glycogen or fat released into our blood streams. The blood sugar levels simply go up and down in a way that is perfectly reasonable for our bodies.

Why does this happen? Why is fruit different to ordinary sugar? Why is fruit OK?

Maybe it is to do with the consistency of the fruit, which may decrease the rate of stomach emptying compared with just swallowing a sugary drink. Instead of a sugar spike, we get a slower, more steady release of sugar into our blood streams.

Also, the soluble fibre in fruit has a gelling effect in our intestines that slows the release of sugars. So, researchers tested to see if the difference was caused by just the fibre. They experimented with berry juice that had all the sugar but none of the fibre. A clear difference was observed early in blood sugar insulin levels. After 15 minutes, the blood sugar spike was significantly reduced by the berry meals, but not by the juices, however, the rest of the beneficial responses were almost the same between the juice and the whole fruit, suggesting that fibre may just be part of it.

Another fact is there are phytonutrients in fruit that inhibit the transportation of sugars through the intestinal wall into our blood stream; again, off-setting any spike. Phytonutrients in foods like apples and strawberries actually block some of the uptake of sugars.

Also, consider this. We know eating white bread produces a big insulin spike within two hours. However, add some berries and although we have added more sugar in total, the effect of the berries is to blunt the spike. Like pancakes? Eat blueberry pancakes!

Sugar spikes are a real problem. Slowly released sugars are not so significant.

The occasional small amount of white sugar is no big deal unless you are being diligent in response to major illness like cancer when it is best to avoid it altogether. Remember, when you are well, it is what you eat mostly that is important. So, aim to avoid sugar at home, but if out, no need to be too paranoid; just be careful and make smart choices.

Fruit sugars are OK. (Best eat fruits with their peels or skins if they are edible.) Two to three pieces of fruit per day are recommended; more if it suits you.

Refined carbohydrates are not OK (as in white bread).

Complex carbohydrates are OK (as in good quality wholemeal bread).

Enjoy your fruit. Enjoy your complex carbohydrates.

Want more details?

The Centre's library has copies of Dr Gawler's book "You Can Conquer Cancer" – which has many details like this re food.

References

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Petta S et al. *Industrial, not fruit fructose intake is associated with the severity of liver fibrosis in genotype 1 chronic hepatitis C patients.* *J Hepatol.* 2013 Dec;59(6):1169-76. doi: 10.1016/j.jhep.2013.07.037. Epub 2013 Aug 6.

Johnson RJ et al. *Sugar, uric acid, and the etiology of diabetes and obesity.* *Diabetes.* 2013 Oct;62(10):3307-15. doi: 10.2337/db12-1814.

Stanhope KL. *Sugar consumption, metabolic disease and obesity: The state of the controversy.* *Crit Rev Clin Lab Sci.* 2016;53(1):52-67. doi:10.3109/10408363.2015.1084990. Epub 2015 Sep 17.

Dr Ian Gawler OAM, BVSc, MCounsHS is a bestselling author and authority on mind-body medicine and meditation. He established Australia's first active Cancer Support Group in 1981 to teach people how to increase their chances of survival from cancer and improve their quality of life. In 1983 The Gawler Cancer Foundation was founded as a non-profit organisation to continue this important work.



What's on at the Centre... Weekly Programme

What is Pathways?

Pathways is an opportunity to spend time with one of our trained Support Workers in a private, quiet environment to explore and prioritise goals, needs and skills regarding your cancer journey, or if you are a carer, to explore how you can be of support, while at the same time taking care of yourself. Pathways appointments are available most days. Please ring the Centre to book your free Pathways appointment.

Monday

Young Women's Support Group

A friendly support group for women under 45 to discuss issues affecting them on their cancer journey.

1st & 3rd Monday of the month

6.00pm – 7.30pm

By Donation

Please register your interest by telephoning the Centre on 8272 2411.

Melanoma Support Group

Facilitator: Karen

Last Monday of the Month

10.30am – 11.30am

Massage – Remedial, Relaxation, Myofascial; Cranio Sacral, Trigger point

Therapist: Ryan

Fortnightly, Monday mornings

Members \$40 Non-Members \$85

Massage – Remedial, Relaxation

Therapist: Trudie

Fortnightly, Monday afternoons

Members \$40 Non-Members \$85

Reiki

Therapist: Angela

Fortnightly, Monday afternoons

Members \$40 Non-Members \$85

Counselling

Counsellor: Natalie

Weekly, Monday afternoons

Members \$40 Non-Members \$85

Tuesday

Counselling

Counsellor: Dagmar

Weekly, Tuesday afternoons

Members \$40 Non-Members \$85

Art Therapy – one on one

Individual 90 minute session

Facilitator: Rebekah

Weekly, Tuesday mornings

Members \$60 Non-members \$90

Massage – Oncology, Relaxation, Remedial, Lymphatic Drainage, EFT, Bowen therapy

Therapist: Judy

Fortnightly, Tuesday mornings

Members \$40 Non-Members \$85

Massage – Oncology, Relaxation, Remedial

Therapist: Andrea

Fortnightly, Tuesday mornings

Members \$40 Non-Members \$85

One on One Meditation

Facilitator: Dagma

Weekly, Tuesday afternoon

Members \$20 Non-Members \$30

Men's Support Group

This group provides an opportunity for men to discuss issues affecting them on their journey, whether they are a patient, carer or partner of a patient.

Facilitator: Mel

1st & 3rd Tuesdays of the month

7.00pm – 9.00pm

By Donation

Please register your interest by telephoning the Centre on 8272 2411.

Twilight Talk

Twilight Talks are an informative session held on the second Tuesday of each month from 6.30pm to 7.30pm.

Cost: Members free Non-members \$20

Bookings essential.

Please ring the Centre or look on our website for upcoming dates and topics.

Wednesday

Group Meditation

Facilitator: Dharmamodini

No booking necessary

Weekly, Wednesday mornings

10.30am – 11.30am

Members \$7.50 Non-Members \$10

Massage – Oncology, Bowen Therapy, Kinesiology, EFT, Lymphatic Drainage

Therapist: Sarah

Weekly, Wednesday mornings

Members \$40 Non-Members \$85

One on One Meditation

Facilitator: Nicole

Weekly, Wednesday morning

Members \$20 Non-Members \$30

Massage – Oncology, Lymphatic Drainage, Remedial

Therapist: David

Weekly, Wednesday afternoons

Members \$40 Non-Members \$85

Thursday

Thursday Women's Support Group

A friendly support group for women over 45yrs of age to discuss issues affecting them on their cancer journey.

1st & 3rd Thursday of the month

10.00am – 12noon

By Donation

Please register your interest by telephoning the Centre on 8272 2411.

Massage – Oncology, Remedial, Lymphoedema Therapy

Therapist: Erin

Fortnightly, Thursday afternoons

Members \$40 Non-Members \$85

Massage – Oncology, Remedial, Cranio-Sacral, Reiki, SER (emotional release)

Therapist: Anne-Marie

Fortnightly, Thursday afternoons

Members \$40 Non-Members \$85

Courses and Workshops

Please ring the Centre on 8272 2411 to book into a workshop/course as bookings are essential.

Counselling

Counsellor: Lynne
Weekly, Thursday afternoons
Members \$40 Non-Members \$85

One on One Meditation

Facilitator: Lynne
Weekly, Thursday afternoon
Members \$20 Non-Members \$30

Friday

Massage – Oncology, Lymphatic Drainage, Remedial

Therapist: David
Fortnightly, Friday mornings
Members \$40 Non-Members \$85

Carer's and Family Support Group

A friendly and supportive group for carers of loved ones living with cancer, and their families.

1st & 3rd Friday of the month
12.15pm – 2pm
Facilitator: Lee
By donation

Please register your interest by telephoning the Centre on 8272 2411.

Counselling

Counsellor: Lee
Weekly, Friday mornings
Members \$40 Non-Members \$85

Monday – Friday

Resource Centre

The library is an easy and convenient way to find information and inspiration. Come in and have a browse, ask our staff how this great resource can help. Internet research can be arranged for you by one of our volunteers.

The library is open during office hours
9.30am – 4.00pm, Mon – Fri
No Charge – Members' facility only.

Monday

Journey to Wellness

A highly recommended course for all our new members.

This 6 week course covers a range of topics specifically designed to assist cancer patients to maximize their wellbeing on a physical, emotional, psychological and spiritual level.

Facilitators: Sarah Trangmar, Paul Kern, Lynne Murphy, Anne-Marie Halligan and Pam Mitchell

Next course commences Monday
30th October 10am – 12.30pm

Course is FREE for Members as funding has been obtained

Wednesday

Art & Yoga

It's safe, fun & easy to do. You will enjoy this relaxing class of gentle exercise and conscious relaxation combined with creative Art.

8 week course with no prerequisites
Facilitator: Tina
Next course commences Wednesday
25th October 2.30pm – 3.45pm
Class is limited to 10
Cost: Members \$55 Non-members \$80

Juicing Workshop

This monthly workshop shows you how easy it is to make your own fresh juice and harness all the goodness of vegetables and fruit.

Facilitator: Cherie
1st Wednesday of the Month
1.00pm – 2.00pm
Members \$7.50 Non-Members \$10

Seeds for Health

A 6 week course to learn everything you need to know about growing organic vegetables in your own veggie patch!

Facilitators: Diana Bickford & Cath Caon
Next course commences: Wednesday
25th October 10am – 12.30pm
Cost Members \$55 Non members \$80

Friday

The Hero's Journey

This 8 week course provides an opportunity to explore your creativity as a catalyst for healing. Participants make a personal book that tells their cancer story and will offer them a rich and powerful experience of memorialising their own heroic journey through cancer.

Facilitator: Rebekah
Next course commences: Friday 27th
October 10.30am – 12.30pm
Register your interest – cost to be advised depending on funding obtained.

Vegetarian Cooking

This 4 week course will teach you how to prepare simple healthy vegetarian meals. The workshop will be fun & interactive and allow for participants to ask questions and discuss relevant topics.

Next Course commences 10th November
from 1.30pm to 3pm
Members \$55 Non-Members \$80

Saturday

Vegan Cooking

Come along to this fun workshop exploring a vegan way of cooking.

The workshop is suitable for anyone new to vegan cooking or for those who are currently vegetarian and looking to include some vegan alternatives.

Register your interest – date to be advised.

Register your interest for:

Chair Yoga for Breast Cancer

Tai Chi

Phone the Centre on 8272 2411.
Any other workshop ideas please contact the Centre to discuss.

With the exception of Wednesday morning meditation, you are advised to contact the Centre on (08) 8272 2411 to confirm course commencement dates and times, and to make bookings for all courses listed.



Dr Stephen Hardy
PhD serves on
the Cancer Care
Centre Board and
is the founder and
managing director
of Promoting Good
Health Pty Ltd.

Causes of Cancer – Part 5: Genetics

by Dr Stephen Hardy PhD.

Previous articles in this series (1 – 5) have discussed preventing 37,000 Australian cancer cases a year by addressing six lifestyle factors (6). In doing so we've covered three of the four causes of cancer proposed by Professor Ian Frazer of the University of Queensland (7):

- 30 % of cancer is caused by what we do to ourselves;
 - 30 % of cancer is caused by what we've done to the environment;
 - 30 % of cancer is caused by what you catch; and
 - Only 5 – 10 % of cancers are genetic.
- In this article we will look at the 5 – 10 % of cancers caused by your genes.

Before we begin, I am indebted to Paul Kern for his article "Know your genes, know your health challenges" published in the April – June 2017 issue of Healthy Living (8). That Paul did such a good job discussing which genes are implicated in cancer means I don't have to and can take this article in the direction I really wanted to go. So please view this article and Paul's as a set to be read together.

The first thing we need to discuss is Professor Frazer's 5 – 10 % estimate may be true for cancer-causing genes you inherited from your parents. But it isn't telling the whole story: Genetics plays a profound role in the development of cancer, far more than what Professor Frazer's 5 – 10 % estimate suggests. To understand the distinction we need to know why and we need to know how.

I can't help it: I've got the gene

Regularly we hear popular press reports about how scientists have found the genes responsible for some medical condition or behaviour, as though having the gene alone explained everything and sealed your fate. Such thinking is naïve and flawed. You are not a slave to your genes.

Your DNA, collectively called the genome, contains roughly 25,000 genes. A gene is a set of instructions to make a protein. Around 25,000 genes means around 25,000 proteins. What these proteins do and when they are expressed keeps you alive, makes you function and sets certain physical characteristics, like your eye and hair colour and how tall you are. They can also determine how susceptible you may be to particular diseases or medical conditions, as Paul Kern discussed in his "Know your genes, know your health challenges" article (8).

For the purposes of this discussion it will be useful to think of the genome as a recipe book and each gene as an individual recipe. If you're having friends over for dinner you don't start at the first recipe in the book and make every one, you go through the book and craft the meal by picking recipes that complement one another: A nice pumpkin soup recipe for starters; a hearty curry for main course and a soufflé for dessert.

Some recipes you'll make often; some occasionally; some on special occasions; some just once and some you'll never make. Likewise, which recipes you make will change over time. You'll stop using recipes from the children's section as your children grow and use different recipes as your tastes change. It is exactly the same with your genes. Some genes are expressed all the time, some occasionally; some only once; some only on special occasions or for a short period while some will never be expressed.

The critical thing is this: If you can prevent a damaged gene from being expressed, then it can't hurt you. So the important thing is not if you have the gene, it is whether it is expressed, under what circumstances and what other factors may be acting on it.

So what determines if a gene is turned on or off and when? While the answer depends on the particular gene, we now know the environment has a profound effect on gene expression. Indeed Epigenetic evidence suggests the environment has more profound effects on the genes than the genes do on the environment, potentially turning genes on or off permanently in ways that may be inherited by your children. There is considerable interest in Epigenetics as both a contributing factor in cancer and as a therapeutic strategy against a range of diseases, including cancer - and with good reason (9).

While a fascinating and important subject, we won't be discussing it here. I will however make particular mention state of mind and meditation have been found to regulate the expression of beneficial genes (10).

It has been said "Your genetics loads the gun but the environment pulls the trigger." While this is a very apt description, to fully appreciate its significance we need to discuss how the gun gets loaded in the first place.

The instructions in the roughly 25,000 genes of your DNA are written in genetic words and letters. Around 3 billion letters. This is around the same number of letters contained in a stack of books 75 metres high. Think about this for a minute: All the information in a stack of books 75 metres high packed into every cell in your body, something so small you can't see without the aid of a powerful microscope.

When a cell reproduces, this information has to be copied – Perfectly. Unfortunately, the process isn't quite perfect. Every time a cell reproduces and copies the 3 billion genetic letters, it makes about 175 errors (11). That means each and every one of the roughly 30 trillion cells in your body has, on average, at least 175 errors in the genetic blueprint. It also means the more copies you make the more errors accumulate: 175 errors in the first copy; 350 in the second; 525 in the third and so on...

An error in the cell's genetic blueprint is called a mutation. Despite what the comic books may say, mutations won't make you one of the X-Men. A mutation is a fault; it's damage, it's something you don't want.

Fortunately, the cell has ways of dealing with some mutations so they don't alter the information a gene contains, while others can be repaired. This isn't true for them all however and mutations will accumulate and harmful mutations are the starting point for cancer. But how do you get from a mutation to cancer?

The multi-stage model of Carcinogenesis

Carcinogenesis – the genesis or beginning of cancer - is a multi-stage process (12, 13):

- Initiation;
- Promotion; and
- Progression.

The first stage is called Initiation and involves DNA damage – mutations. It doesn't matter whether your genes were damaged because you were born that way; through errors made when your DNA was copied; or through your lifestyle choices like smoking or excessive exposure to ultraviolet light. What is important is any DNA damage has the potential to be the starting point for cancer.

As we've already discussed, damaged genes can only hurt you if they are expressed, which brings us to the second phase: Promotion. This is where something like a chemical, environmental or epigenetic factor either causes the abnormal expression of normal genes or the expression of damaged ones.

Here we need to make a small but very important diversion.

If damaged cells are the starting point of cancer and every one of the roughly 30 trillion cells in your body can't be trusted because they each have at least 175 errors, what are the odds some of these cells will have all the mutations they need to become a cancer? The answer is chilling: It's 100 %. Let's spend a few minutes on this so the significance sinks in: On the day you were born you had potentially cancerous cells in your body. There are potentially cancerous cells in your body right now, as you read this sentence.

And on the day you die, there will still be potentially cancerous cells in your body. It means you don't "get" cancer because it's already there...

If we all have potentially cancerous cells in our bodies from the day we were born, then why doesn't everyone get cancer? Knowing no cell can be trusted, your body sets up Command and Control systems so no cell is ever completely in charge of its own destiny. By exercising collective control potentially cancerous cells are stopped from growing by the signals they receive from around the body and by the influence of their neighbours. Promotion is a process where this collective control breaks down, giving the potentially cancerous cell a chance to make a break for it. And they do, turning into early cancers.

These early cancers are the Enemies of the State we discussed in the previous article, the ones your immune system is constantly looking to seek and destroy (5).

The final stage is Progression, where the early cancer slips through your defences (14), gets a foothold and grows large enough to be a visible cancer. This is when the Doctors finally know it's there but by then it may have been growing for between 2 and 9 years. We've already discussed what giving your opponent a 780 metre head start in an 800 metre race means (5).

If your body contains potential cancers all the time, then the secret to avoiding cancer is to manage your risk and keep it under control so it doesn't take control of you. That means avoiding things that cause mutations like smoking, ultraviolet light and alcohol. It also means avoiding things (like environmental pollutants and epigenetic factors), which may cause abnormal gene expression, potentially damaged genes from being expressed, or beneficial genes from being silenced. And finally making sure to do everything you can to keep your greatest ally – your immune system – at the absolute top of its game.

Your body is set up by nature to protect you from cancer – provided you respect it. Whether you are supporting or interfering with that process is determined by the decisions you make every day. And that brings us back to the six lifestyle factors we started with.

You have more control over your health than any Doctor ever will. I hope these articles help you see that control wisely.

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Practice Self-Care...a good daily habit

Do you ever forget to take care of yourself?

Although important for everyone, self-care is especially true for those of us who are carers or support people to someone who is going through cancer treatment.

Self-care is a personal matter. Everyone's approach will be different. It relates to what you do to look after your holistic wellbeing – physically, psychologically, emotionally, and spiritually.

Here are some suggestions you may find useful to implement into your daily routine:

Physical Self-Care – staying fit and healthy and full of energy

- Develop a regular sleep routine
- Aim for a healthy diet
- Take breaks during the day
- Get some regular exercise

Psychological Self-Care - staying clear-headed

- Keep a reflective journal
- Engage in a hobby
- Turn off your email and phone outside of 'work' hours
- Make time for relaxation
- Make time to engage with positive friends and family

Emotional Self-Care – safely experience your full range of emotions

- Develop friendships that are supportive
- Write three good things that you did each day
- Play a sport and have a drink together after training
- Go to the movies or do something else you enjoy
- Talk to your friend about how you are coping with life demands

Spiritual Self-Care – maintaining a sense of perspective beyond the day-to-day of life

- Engage in reflective practices like meditation
- Go on bush walks
- Do yoga
- Learn mindfulness

Note: The activities and suggestions above are a guide only and it is important to choose activities that are meaningful to yourself and your own goals.

Physical self-care – a walk along the beach.



Drink your Smoothie...it's good for you!

Smoothies have long been a good way to get extra nutrients into your diet. Ingredients chosen wisely can deliver a nutritionally packed drink that can help boost your overall health.

During times of illness, smoothies can help increase your calorie intake if your appetite is poor; helping you boost your strength and energy.

You can make a smoothie using a food processor, liquid blender, stab mixer or a dedicated appliance like a nutri-bullet. Smoothies are best eaten fresh as some ingredients can discolour and their nutritional value can reduce if kept too long.

Before you begin clean all your fruit and vegetables in a weak solution of apple cider vinegar and water (1 tablespoon vinegar to a large bowl of water). This can be done ahead of time when you bring your fruit and vegetable home from the shops or market.



Follow these simple steps to a fuss free, easy to prepare smoothie:

Before you start, chop up large pieces of hard fruit or vegetable to put less stress on your appliance's blades.

1. Add your liquid: choose between water, coconut water, dairy milk, or dairy alternatives such as oat, almond or soy milk.
 2. Add semi solids ingredients – silken tofu, yoghurt or almond butter. (optional)
 3. Add a tablespoon of omega-3 rich seeds such as chia, flax or pumpkin (optional)
 4. Follow this with soft fruit and vegetables - Kale, spinach, avocados, bananas, berries.
 5. Now add the firmer fruits and vegetables – apples, carrots, pineapples
 6. Finally add frozen fruit or ice to make a deliciously thick liquid.
- Optional extra – you can add a good quality protein powder (such as pea protein). Add this last, and don't over blend, so its nutritional value stays intact.

A smoothie can be as simple as liquid, a fruit/vegetable and some ice. Experiment!

Below are some ideas for smoothies. The Centre's library also has several books on smoothies that members are encouraged to borrow.

Calorie Booster Smoothie

A smoothie to drink if you're not well enough to eat a meal.

- 2 cups coconut water or oat milk
- half an avocado
- handful of mint
- juice of half a lime
- 1 scoop protein powder

Blend water or milk with the avocado.

Add the mint and juice of lime. Blend until smooth.

Add the protein powder and blitz until just combined.

Anti-nausea Smoothie

Ginger is a known herb that assists with nausea

- 1 banana
- 6 strawberries (fresh or frozen)
- ½" ginger (5 gms), peeled and chopped into 4 pieces
- ½ cup Greek yoghurt (or coconut milk for a dairy-free alternative)
- ½ cup rolled oats milk of choice if desired

Blend together your milk of choice with the banana, rolled oats and ginger.

Add in the yoghurt and strawberries until well combined.

Immunity Booster Smoothie

Help ward off the cold and flu.

- 1 banana
- 2 oranges, peeled
- ½ small lemon, peeled
- 1 teaspoon fresh ginger, cut into 4 chunks
- 2 tablespoons chia seeds, soaked in water for 5 minutes
- 2 cups baby spinach

100 ml water if needed (this will depend on how much juice is in the oranges and lemon. Add if the smoothie is too thick for your liking)

Blend together oranges, lemon, ginger, and seeds. Add the spinach and banana. Add the water if necessary. (see notes above)

You may find sipping your smoothie over a period of 1-2 hours is helpful rather than drinking it all in one go.

Journey to Wellness – now free to all members

Due to a generous donation to sponsor one of the Centre's courses, 'Journey to Wellness' is now free to all members.

Spaces are limited so please ensure you enrol as soon as possible. For full details of the course, please refer to the Centre's website or ring and speak to one of our admin volunteers.

Spring means Time to get out into the Garden

Always wanted to know how to grow your own organic vegetables? The Centre's very popular 'Seeds for Health' gardening course is on again. Held at the Fern Ave community garden in Fullarton, this 6-week course will educate, inspire and entertain you. Join Diana and Cath for this hands on and practical course. Course begins on Wednesday 25 October. Please see details on page 9.



Thank you to Lee and Kerri for a Great Afternoon Tea

Lee Hutton & Kerri Monaghan, current and past members of CCC, hosted a fundraising afternoon tea at the Centre in August. Around 100 people attended the event which raised over \$3,500. Don Caddy, a founding member of CCC, spoke briefly about the Centre's history. A huge thankyou to both these inspiring women for organising such a successful event! Photographed is Leanne Isaacson (Centre Coordinator) accepting a cheque from Lee and Kerri.



New books and DVDs for the Library

Recently CCC was able to purchase a number of new titles for the library thanks to a donation from the Adelaide Combined Lodges and The Freemasons Foundation. Apart from new books, there are several new DVDs and CDs covering a range of topics on cancer. Next time you are passing, please drop in and browse the library. The library is a member's only facility and is open from 9.30am to 4.00pm Monday to Friday. Up to six books, DVDs and/or CDs can be borrowed by members for one month.

Leanne Isaacson (Centre Coordinator) and Brian Murphy (Centre Treasurer) accepting a donation from Ray Nicholson, Robert Clyne, and Gary LeRosignol from Adelaide Combined Lodges.



A big thank you
to our wonderful volunteers



Cancer Care Centre...
a place of help, hope and understanding.

Been diagnosed with cancer?

Start your journey with a free Pathways appointment.



Pathways is a free service offered by the Cancer Care Centre to people with cancer.

In a caring and supportive environment, one of our Support Workers will meet with you and listen to your story.

Telling your story is an opportunity to spend time with someone who cares, in a private, quiet environment to explore and prioritize goals, needs, and devise a healing plan appropriate to you and your personal cancer journey.

A Pathways appointment is also available to carers of someone with cancer. The Support Worker will explore how you can be of support to that person, while at the same time taking care of yourself.

The Support Worker will link you to services that will help assist you – either within Cancer Care Centre or with other community organisations.

A Pathways appointment is of one-hour duration and is your first step in complementary care for your cancer journey.



Cancer Care Centre... empowering individuals and families as they travel the cancer journey.