

Slide 1

## SUPPORTING GUT HEALTH THROUGH CANCER TREATMENT

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Slide 2

### Working With Cancer Clients

- Clients come to us as a secondary practitioners
- Our role is one of support
- The biggest issue is making recommendations that are not going to be countered by the MD
- In most cases clients are going to be going the conventional route
- They are looking for more they can do



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### Working With Cancer Clients

- In many cases it is the family members who are bringing them to see you
- Both the client and the family members are full of fear and feeling powerless in the situation
- The step to look at food or supplements is about gaining a measure of control
- Our role is to provide the best support we can



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Probiotics

- There is some research supporting the use of probiotics with radiation and chemotherapy
- The information is limited
- L acidophilus was useful in reducing the PVCR, which is the most important determining factor of prostate position (rectal volume), during radiation therapy for prostate cancer.
- Another study (mice) found that probiotics may prevent injury to the intestines during radiation treatment (may prevent the discontinuation of treatment)



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Probiotics

- Human study of women receiving radiation during cervical cancer treatment – probiotics lowered incidence of diarrhea
- Another human study found VSL-3 help prevent diarrhea in rectal, cervical and sigmoid cancer
- In a mouse study looking at chemo drug Cyclophosphamide found that intestinal flora stimulated the immune response to cancer – the mice had become resistant to the chemo drug



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A Piece of the Puzzle

- "Rspo1" or "R-spondon1." activates our stem cells to rebuild tissue and repair it after chemotherapy
- Mice study given lethal dose of chemo survived (50-75%) when given Rspo1 during treatment
- Gut bacteria is responsible for producing Rspo1 and antibiotics during chemo is harmful to this process
- Unfortunately, Rspo1 is produced when there is normal healthy gut ecology (not present in cancer clients) – dysbiosis is associated with cancer



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## Summary of Some Studies

| Study                     | Cancer Type                           | Pts | Bacteria                                                                            | Diarrhea                                     | Stool consistency                      | Comment                                                                  |
|---------------------------|---------------------------------------|-----|-------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------|--------------------------------------------------------------------------|
| Dewett et al. (2005)      | Cervix, gastric, colorectal, prostate | 246 | Lactobacillus acidophilus and Bifidobacterium bifidus 2.3 times daily               | Grade 3/4 14% vs. 35% placebo (p=0.04)       | Grade 3/4 19% vs. 45% placebo (p=0.03) | Mix of diarrhea and constipation; stool consistency varied with diarrhea |
| Chittaranom et al. (2010) | Cervix                                | 63  | Live Lactobacillus acidophilus 1x10 <sup>10</sup> CFU/100mL Bifidobacterium bifidus | Grade 3/4 14% vs. 42% placebo (p=0.03)       | Grade 3/4 19% vs. 45% placebo (p=0.03) | Stool became more watery after discontinuation                           |
| Kindle et al. (2008)      | Cervix or Uterus                      | 83  | Lactobacillus acidophilus in yogurt daily                                           | Grade 3/4 44% vs. 30% placebo (p=0.05)       | None                                   | Wants future products with fermentation inhibitors                       |
| Decker et al. (2007)      | Colorectal, gastric                   | 400 | Multiplex, taken 3 times daily in a sachet                                          | Any diarrhea in 28% vs. 25% placebo (p=0.33) | Not reported, but feces described      | Postoperative IBS                                                        |
| Uchewech et al. (2007)    | Vaginal                               | 206 | Lactobacillus rhamnosus                                                             | Grade 3/4 10% vs. 10% placebo (p=0.93)       | Grade 3/4 10% vs. 10% placebo (p=0.93) | Diarrhea is not a problem for this population                            |

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## The Key Benefits of Probiotics

- Better treatment accuracy
- Fewer breaks in treatment
- Fewer side effects
- Avoiding secondary complications – (C Diff)



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## SCFA AND FERMENTED FOODS

- Butyrate has been shown to induce apoptosis in colon cancer cells in rats and is chemo-protective
  - Kefir anti-cancer and anti-tumour effect in mice
  - Other studies show anti-carcinogenic properties and prevention of tumours
  - Most fermented foods have chemicals that are anti-cancer.
  - One study found a correlation between increased gastric cancer **risk** and "pickled foods" in Korea and China
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### And Finally

- A 2007 entitled Antioxidants And Other Nutrients Do Not Interfere With Chemotherapy Or Radiation reviewed 280 peer reviewed studies including 50 human studies found no adverse effects nor did they interfere with effectiveness of the treatment
- Vitamins A,C,E, D, K and all the B's and the mineral selenium as well as cysteine and glutathione
- In 15 human studies , they were linked to increase survival rates



<http://centerfornutrition.com/resources/Antioxidants-Nutrients-Chemotherapy+part+1.pdf>

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### Type of Treatments

- Allopathic or natural treatments or both?
- There are a lot of options ► clients are scared and confused.
- Your job is to provide them info without bias.
- Adjust their protocols to complement their decision.



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### Intestinal Health

- Intestinal health is a key component when working with cancer clients.
- Our immune system fights cancer everyday.
- There is a proven link between healthy gut flora and an improved immune system.



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## Slide 13

### Probiotics

- Conventional cancer treatments, like chemotherapy and radiation have been known to damage the intestinal lining which may lead to acute diarrhea and dysbiosis.
- Probiotics have been found effective in treating chemotherapy induced diarrhea in patients with colon cancer and those with late stage breast cancer.



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## Slide 14

### Probiotics - Colon cancer

- Colorectal cancer is the third most common in cancers.
- Probiotics and prebiotics have protective affects against colon cancer.
- Lactobacillus bulgaricus and Streptococcus thermophilus have been found to be effective in deactivating colon carcinogenesis.



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## Slide 15

### Probiotics – Oral Cancer

- Probiotics are now being regarded as an option for cancer prevention.
- Lactobacillus salivarius Ren (L. salivarius Ren) has shown to have anticancer effects on oral cancer by suppressing 4NQO- induced oral carcinogenesis.



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### Bile Salts

- Diabetes and obesity (disability) has been linked to higher cancer risk especially in the liver and gastrointestinal tract as a result of:
  - Dysregulation of bile acids
  - Increase in toxicity of bile acids
  - Dysbiosis
  - Inflammation in the gut
- All those were found to contribute to a higher risk of cancer especially liver and GI cancers.
- There's a link between bile acid homeostasis and gut microbiome.

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Slide 17

### Digestive Organs

- Essential for helping us absorb the nutrients:
  - help us prevent cancer.
  - Help support the immune system
- Filter out toxins → Liver
- Regulate hormones → Liver

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### Liver

- The liver is very important because it plays a big part in:
  - Making hormones
  - Breaking down hormones
  - Spreading hormones
  - Building hormones
  - Transporting hormones
  - Assimilating nutrients
  - Filtering toxins and excreting them

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## Slide 19

### Liver con't

- Keeping the liver healthy is important when helping clients with hormonal imbalance which is often linked to many cancers:
  - Diet
  - Supplements



The illustration shows two livers. The top liver is pink and healthy, labeled 'Healthy Liver'. The bottom liver is yellow and sick, labeled 'Sick Liver'.

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## Slide 20

### Coffee Enemas

- Proven beneficial results in cancer treatments.
- Organic gold roasted coffee high in palmitic acid and caffeine.
- Increase Glutathione S-Transferase (GST) by 700%.
- GST quenches cancer causing free radicals.
- Increase bile salts which bind to toxins.
- Toxins are excreted
- However, does disrupt gut bacteria



The illustration shows a small pot on a stove, a glass of coffee, and a small bottle of coffee.

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## Slide 21

### Mucositis

- Mucositis common side effect of conventional cancer treatments.
- Mucositis ► Inflammation and ulcerations in the mouth and digestive tract.
- It's very painful and can cause a lot of damage.



The illustration shows a person's head with a large, open mouth showing red, inflamed tissue and white sores.

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## Slide 22

### L-Glutamine – Benefit vs. Risk

- Studies have shown positive results in the treatment of Mucositis.
- L-glutamine is needed for the growth of normal cells, but the possibility that it can enhance tumor growth is being examined.



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## Slide 23

### Food

- I-3-C
- Calcium D-glucarate
- Organic foods
- Sulfur containing foods
- Fermented foods
- High fiber diet
- Liver friendly foods



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## Slide 24

### Advanced Stage Cancer

- Healing the gut takes time.
- Important to be cautious when client is in advance stage cancer.
- E.g. client is depleted, has cachexia (weakness and body wasting) , unable to eat, but also has severe intestinal/digestive issues.



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When you're unsure  
where to begin with  
cancer clients, go with  
the gut.



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