



Wellness Leaders

Link Science.World.Canada.Community.Family

### Layer by Layer Leadership & Collaboration with Scientists, Professionals & Kids' Leaders

- 1st - S.S.V - Systematize, Simplify, Visualize Advanced Health-Related Science in the World
- Link Science to Daily Life Wellness Needs for Food Safety, Quality & Efficacy
- Smart Shopping & Manage Wellness S.E.S.E - Scientifically, Easily, Simple and Efficiently



- 1) Deliver Community Service to:  
Newcomers, Immigrants, Seniors, Parents, Kids, Etc.
- 2) Integration. Integrate / Combine Learning  
Health-Related Sciences / Industries, Speaking, Language, Culture, Arts, History, Contributions, Etc.  
into Smart Shopping & Wellness Management S.E.S.E
- 3) Manage Wellness in Various Ways, Skills & have Fun:  
Writing, Speech, Drama, Comics, Report, Video, Arts/Music, Paint, Photography, Etc.

Be Own.Family Wellness Leaders



THE ASSOCIATION OF CERTIFIED PROFESSIONAL NUTRITIONISTS

# Level 2 - New Wellness Program 2 for Community - Adults

Designed by Global Wellness Leaders

Top Talent - Scientists.Professionals.Kids

Link Science to Community.Adults

New Programs to Support One Action: Shop Smart & Manage Wellness S.E.S.E



Keynote Speech - Bilingual (English & Chinese)

Link Science to Vast Community Wellness Needs

from Seniors, Newcomers, Immigrants, Families, Kids/Teenagers, Etc.

1st Time to See such a Scene - Get Together with Scientists, Professionals, Kids' leaders, and Community

Learn . Practice . Lead

# Contents

## A Journey of

## Linking

## Health-Related Science

## to World.Community.Family



Community  
Wellness Needs



# Manage Wellness Scientifically in our Daily Life

## Community Wellness Platforms

-1st Wellness Program for Community Designed

with Layer-by-Layer Leadership & Collaboration - C.I.D\*S.S.V Page 3

\* Linking Science to Daily Life Wellness Needs.

Layer by Layer Leadership & Collaboration to Systematize, Simplify, Visualize Health-Related Science to Manage Wellness Scientifically, Easily, Simple and Efficiently.

\* Deliver Professional Community Services.

Link Science to Community, Smart Shopping, Manage Wellness & Create a Happy & Healthy Community

## New Wellness Program for Community Page 5

\* Examples of Designed Topic for Life Cycle Wellness Management Page 6

Example of Online Workshops - **Stories** of Linking Science to Vast Community Wellness Needs Page 8-10

## Understand Individual Wellness Needs Guided By Science Page 11

\* Choose our Food Wisely Guided by : Food Guide, Wellness Tests - Nutritional Balance, Mineral Ratios Balance, Immune Response/Food Sensitivity, Blood Sugar Levels, Wellness Tests, Etc.

\* Smart Shopping According to Individual Wellness Needs, wellness plans.

## Life Cycle Wellness Management Page 12

\* Wellness Management for Weight, Immunity, Seniors, Pregnancy, Maternal & Baby, Growth, Cardiac, Gout,Diabetes, Bone Joint, Cholesterol, Hypertension,Iron-Deficiency Anemia, Functional Juice with Fruits & Vegetables, Etc.

1) Determine Individual Wellness Needs - Wellness Tests & Scientific Assessment,

2) Wellness Plan - Micro To Macro, Efficacy Care / Optimize Solutions & Smart Match/

When We Face Too Much Industry Information, Enhanced Efficacy Nutrients Management

3) Implement Plans by Smart Shopping According to Individual Wellness Needs, wellness plans.



## Science behind Industries - Help Implement Wellness Plans Page 33

\* Understand Science behind Foods/Industries

\* Smart Shopping - from fields, health industries, table to body for Food Safety, Function & Smart Match - Enhanced Efficacy Management, Implement Wellness Plans Scientifically

## Know World, Know Canada Page 38 - 41

1) What are the Canadian **Contributions** of Science/Industry to the World/Human Health?

Page 23 - Discover Insulin, Page 38- Functional Foods/Canadian Berries, Page 39 - Oats.

2) How could Canadian Health-related Sciences / Industry/Natural Products / **Contributions Guide/Benefit** our Wellness Management Efficiently?





# World's Leading Community Wellness Platforms

A Platform of Linking Advanced Science to Vast Daily Life Wellness Needs for Community Well-being By C.I.D \* S.E.L  
Visualization of all fields Health-Related Science / Holo-Wellness Science to Manage Wellness Easier



Help Green Economy Recovered & Led by C.I.D \* S.E.L  
Establish the Bridge of Wellness Science based on the Canada's Advantages in Global - Science \* Education \* Top Talent

## Power of Science

Link Global Community Successfully  
Because it's Universal & No Borders.  
It Brings Solutions for Vast Daily Wellness Needs.  
It Brings Changes - Quality of Life / Community  
- More Healthy.Vibrant => Be Active . Connected .  
Inspire . Green . Promising . Prosperous . Etc.



## \* Wellness Management

Wellness Tests, Accurate Assessment  
Scientific Plans, Etc.

## \* Certifications - Implement Plans

Food Safety, Quality, Function,  
Formulas, Efficacy Management, Etc.

## \* R&D Innovation - Efficacy Preparations

Formulas, Patents, Optimization Etc.

## \* Science . Education . Cultures . Tours . Etc.

Multicultural / Global Community  
Programs, Wellness Science Tours, Events  
Life Cycle Wellness Management Competitions,  
National Nutrition Day, Immunity Week Etc.  
New Global Careers & Jobs Opportunities



## H.W.S - Holo-Wellness Science

S.S.V Science - Systematized, Simplified, Visualized from Health-Related Sciences  
such as: Agriculture.Industry.Food & Nutrition.Cooking.Life.Wellness Tests.  
Scientific Assessment & Plans, Various Methods of Wellness Care, Etc.  
Interdisciplinary.Integration.Practice.Development



Science is Everywhere  
Manage Wellness  
S.E.S.E, How ?

C.I.D  
S.E.L \* S.S.V  
S.E.S.E

Wisdom in Unity  
Truth in Simplicity



### Wellness Learning

## ACPN



One World One Community One Family



Together as ONE; See Future Create Future Enjoy Future  
Establish a Scientific & Functional Rainbow  
for our Daily Life Wellness Needs

## Holo-Wellness Science Education

for Community is the Most Powerful Weapon  
We Can Use to Make the World Healthier

## Designed by Global Wellness Leaders

Top Talent - Scientists.Professionals.Kids

\* S.S.V Science - Systematize.Simplify.Visualize

- Link Science to Daily Wellness Needs Layer-by-Layer

\* 3 Layers / Levels of Wellness Program

- Understand the Science Behind One Action:

Shop Smart . Manage Wellness S.E.S.E

## \* Level 1 - Program for Professionals

Link Science to Community

- Community Leadership - Community Wellness Leader

- Holo-Wellness Science & Holo-Nutrition Wellness Care

- New Career & Job for Students / Coach,Teacher, Etc.

## \* Level 2 - Program / Multicultural Platform

for Adult.Newcomers, Etc. - Link Science to Family

- Family Leadership & Be My Own Wellness Leader

- Life Cycle Wellness Management

- Visualize & Integrate Learning Science,

Language, Culture, Arts, Etc. into

Wellness Management & Smart Shopping S.E.S.E

## \* Level 3 - Program / Global Community Platform

for Kids, Young People, Etc - Link Science to Kids

- Kids/Youth Innovation . Kids' Leadership.Future Careers

- Programmed by Kids' Leaders - Young Educators & Reporters

- Manage Wellness Scientifically Since Childhood (Age 5 - 18)

- Visualize & Integrate Learning Science, Arts, Language,

Culture, Digital Skills, Etc. Into One Action:

Wellness Practice & Have Fun

- Kids Lead Kids.Family.Community - Global Kids' Wellness Leaders



Science Leaders Scientists Professional Multicultural Community Newcomer.Family.Senior.Parent. Kids' Leader  
Education Insight Determine Compassion Commit Collaborate Listen Encourage Inspire Integrate Scientific Practice  
Industry Vision Mission Wellness Leadership Strategy Layer-by-Layer  
Fields Action Innovation Enjoy Nimble Pragmatic Time  
Table Communication Respect Honest Humility Appreciation Unselfish Patient Responsible Insist Progress New  
Wellness Needs Core Values Principles Partner Opportunity Change Sustainable Capacity Accept Healthy Vibrant

### Wellness Leaders



# Teams Layer-by-Layer for Community Wellness Platforms

Team Together - Link Science to the Community Layer-by-Layer To Achieve Great Wellness

Design 3 Layers of Wellness Programs to Support **One Action**: Shop Smart & Manage Wellness S.E.S.E

Designed by **Top Talent - Global Wellness Leaders** - Scientists.Professionals.Kids

## Management Team

Collaborate with Professional Team & Link Science to Community

Layer-by-Layer Leadership & Collaboration from Management Team to Community Services Team and Volunteer Team



## Professional Team

Systematize, Simplify & Visualize Health-Related Science & Link Science to Daily Life Needs to Make Health Easier

Layer-by-Layer Leadership & Collaboration from Scientific Advisors, Professionals & Practitioners to Kids' Leaders

Management Team



Thomas Lin Carrie Wei Rafik Ragheb Evan Moriarity Paul Kearns Jean-Michel Fitamant

Community Services Team



Alex Campbell Xiuming Zheng Peace Wei Ivan Hon Harry Wang Joe Song Harris Rong Julia Wang Emily Ding Jenny Hsu Steven Chen Betty Gao Kevin Wang Susan Guan Sandy Liang Jane Chen Kyle Long Jennifer Liu Sue Huang Song Wei Guo Fiona Yang Judy Fu Jane Wang Tingmei Zheng George Fang Tina Yang Queenie Poon Ying Lang Flower Liu Annie Zheng

Volunteer Team



### Scientific Advisors

Link Science to Daily Life Wellness Needs

Holo-Wellness Science



Dr. Shi Dr. Holub Dr. Sly Dr. Ni Dr. Ragheb Dr. Beaumier Dr. Rowland Dr. Beaudoin

### Professionals & Practitioners Team

Link Science to Family

Be my Own Wellness Leader

Guided by Scientific Advisors

Feedback to Scientific Advisors

Holo-Nutrition Wellness Care

Life Cycle, Micro to Macro

Optimize Personalized Solutions



Reid Gallant Daniel Mackeigan Jade Sullivan Zach Liu Sun Qingrui Eric Chen Dalton Du



Evan Moriarity Alex Campbell Ella Li Kyle Long Cindy Zhao Jeannie Yang Kevin Wang



Julia Wong Susan Guan Sandy Liang Kali Lo Jennifer Liu Emily Ding Yi Han

### Kids' Leaders Team

Link Science to Kids

Guided by the Scientific Advisors & Professionals

Kids Lead Kids.Family.Community - Global Kids' Wellness Leaders

Young Educators & Reporters

"The Young Children will be the Future Educators and Examples of Healthy Living for the Future Generations."

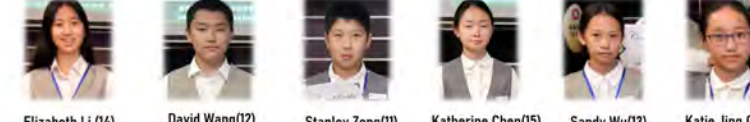
By Dr. Bruce Holub



Katelyn Lau(8) Anderson Wang(9) Tiffany Zheng(10) Ruichen Wang(10) Valenzia Lau(12) Claire Wang(12)



Anna Zou(12) Elim Wu(12) Leo Liao(13) Amberly Dai(14) Vivian Zeng(14) Nancy Li(16)



Elizabeth Li (14) David Wang(12) Stanley Zong(11) Katherine Chen(15) Sandy Wu(13) Katie Jing Guo(11)

# New Community Wellness Programs

Systematize, Simplify, Visualize Health-Related Science to Make Health Easier  
Link Science to Daily Life Wellness Needs and Manage Wellness Simply and Efficiently

Step 1  
Learn

## Science Support to Achieve Great Wellness

Optimize and Implement Wellness Plans  
by Understanding the Sciences Behind the Health-Related Industries



If you are not fish,  
How do you know fish?

The content and quality of Omega 3  
depends on what food the fish eat.

Science  
Support for  
Wellness



# Level 2 - New Wellness Program for Community - Adults

Mission Accomplished / General Holo-Wellness Science Education for Community

Help Link Science to Daily Life Wellness Needs

Visualize  
Science

Wellness  
Programs  
Community

## Examples - Program & Workshop Designed by Professionals & Practitioners

### Holo-Health Science Support Team

**Layer-by-Layer Leadership & Collaboration**

from Scientific Advisors, Professionals & Practitioners to Kids' Leaders

#### Scientific Advisors

Link Science to Daily  
Life Needs



#### Professionals & Practitioners Team

Guided by Scientific Advisors  
Feedback to Scientific Advisors  
Link Science to Community



#### Kids' Leaders Team

Guided by the Scientific Advisors &  
Professionals  
Link Science to Family  
"The Young Children will be the  
Future Educators and Examples of  
Healthy Living for the Future  
Generations."  
By Dr. Bruce Holub



### Holo-Nutrition Wellness Care

- The Future Of Food Is Personal
- Life Cycle Immunity Boost For Kids, Adults And The Elderly
- Macronutrients And Insulin Resistance
- Child Obesity-early Life Nutrition And Adult Cardiovascular And Metabolic Diseases
- Maternal Nutrition Health Care - Diet And Anemia
- Common Diseases And Nutrition Of Infants And Young Children
- Bone Health And Osteoporosis, Arthritis And Joint Health
- Free Radicals And Aging
- Yogurt Probiotics And Gut Health
- Case Study - Healthy Eating Lifestyle For Modern Family
- Case Study - Family Nutrition And Healthy Growth Of Children
- Case Study - Macro-nutrients And Insulin Resistance
- Case Study - Immunity In Cancer And Immune Nutritional Supplements
- Case Study - Cholesterol & Cardiovascular Disease (CVD)
- Case Study - Dietary Salt And Hypertension
- Case Study - Iron-deficiency Anemia
- Case Study - Gout Diet And Self-nutrition Care To Avoid Next Attack
- Case Study - Constipation
- Case Study - Meal Replacement, Nutrition And Diabetes
- Case Study - Calcium Supplementation With Stones
- Case Study - Nutrition Health Care - Kids' Eczema
- Case Study - Trigeminal Neuralgia And Nutritional Health Care
- Case Study - Hypertension Is Complicate
- Case Study - Stay Away From Obesity
- Case Study - The Effect Of Lectins In Food And Weight Management
- Case Study - Autoimmunity And Nutrition

### General Holo-Wellness Science

Help Implement Wellness Plans

- Industry / Food Safety, Quality,  
Functional Nutrients & Smart Shopping

Natural health product regulations in Canada and how to evaluate the quality of a natural health product, maintain a calm, wise judgment ?Understand the Science & Information behind the Product

- Six Vital Steps Help Understand Food Safety, Quality & Efficacy Health Care
- Comparison of Regulations in different countries - Understand Food Safety, Quality & Efficacy Nutrients from Global Vision & Smart Shopping
- How to Filter Health Products - Use common sense to screen health products
- Case Study - Gain insight into the Products & be Smart
- Canadian Berries & Efficacy Nutrients - Healthy Food Developments in Canada
- Fiber, Oats & Efficacy Nutrients - Canada's Contribution to Functional Food
- Fiber Science & Canada's Contribution to Global Health
- Dietary Fibers in our Daily Life
- Antioxidant active ingredients in fruits and vegetables
- Hypoglycemic functional food, fat-lowering functional food
- Health benefits of dietary fiber
- How to shop for kids' snacks, drinks, instant noodles, oats etc.
- How to read nutrition facts & ingredients on food labels?
- Food additives and food safety, amino acids and active peptides

### Wellness Leadership

Community.Family.Kids, Speech Skills etc. for Wellness Science



# ACPN Online Workshops

## ACPN Online Workshops

Respond to the needs of those most vulnerable to the health, social and economic impacts of COVID-19.

**Special Thanks / Proudly Supported by**

**Government of Canada's**

**Emergency Community Support Fund lead by  
Employment and Social Development Canada (ESDC)  
The Canadian Red Cross (CRC)**

**Designed by Global Wellness Leaders**

**Link Science to Community Professionally**

**New Programs to Support One Action**

**Shop Smart & Manage Wellness S.E.S.E**

**Simply.Easily.Scientifically.Efficiently**



Thank You

Canada



Canadian  
Red Cross

Croix-Rouge  
canadienne



Wellness Leaders



Community  
Wellness Needs



# Thank You Letter

from Ms. Renée Xu

(rxu@ccscan.ca)

Catholic Crosscultural Services (CCS)

The Chronic Pain Relief Management workshop was a big success! Most of the senior members attended the live workshop. There were also a few younger participants from another group who need professional knowledge for their family members or themselves.

According to their feedback, they appreciate the informative and in-depth presentation. Julia is knowledgeable on the topic and shared both scientific information and first-hand experience as a practitioner. I was impressed by your collaboration with Julia during the presentation.

This workshop is particularly beneficial to participants on the possible causes of chronic pain, everyday coping tips through food and movement, and how to choose the right health products.

We also appreciate that your speaker spending extra time on answering questions.

Thanks again to ACPN's support and effort!

## Example of Online Workshops

Layer by Layer Leadership & Collaboration

Link Systematized, Simplified, Visualized Sciences to Community  
Manage Pain Easily, Simply and Scientifically

### Organizer: CCS & ACPN

Ms. Renee Xu / CCS

Ms. Carrie Wei / ACPN

Host : Ms. Sandy Liang/ACPN

Speaker: Ms. Julia Wong/ACPN



Online We-chat Workshop on Oct. 15, 2020  
Chronic Pain Relief Management for Chinese Senior Wellness Group



Canada



Canadian Red Cross

Croix-Rouge canadienne



Screen Snap from We-Chat Workshop





# Stories of Linking Science to Vast Community Wellness Needs

## Q & A

### Screen Snap From Online We-Chat Workshop

Special Thanks to the  
Government of Canada's  
Emergency Community Support Fund lead by  
Employment and Social Development Canada (ESDC)  
the Canadian Red Cross (CRC)

Canada

Canadian Red Cross  
Croix-Rouge canadienne

Then today's lecture may end here. There is more information. If you have any questions, you can write it in the group or ask Rene to forward it to me, or contact me. Thank you.

How to treat thumb tenosynovitis ?

Teacher, I want to do the tests. Where is the tests? Where should I go to do tests?

If you want to know about the test, please contact me and we will recommend wellness tests based on individual needs.



Is this fish oil content/concentration okay?

The concentration of this fish oil is more than 60%, but we don't just look at the concentration when we eat fish oil, because a lot of fish oil is very easy to stain which means it's very easy to oxidize, so you should check/taste it when you eat it.

Group Announcement  
For Chinese Senior Wellness Group  
Hello everyone, this is an online event organized by Aijingge Library, specifically for the elderly during the new crown epidemic. Add a color to everyone's entertainment life in this special period of comprehensive anti-epidemic.

这个鱼油的浓度是有六成以上，但是我们吃鱼油不是先看浓度还要看，因为非常多的鱼油，它是很容易染色，就是很容易氧化掉的，所以你吃的时候还要看一下它的味道...

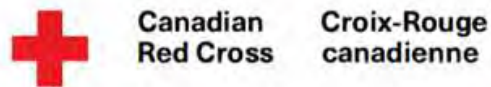
# Stories of Linking Science to Vast Community Wellness Needs



## Q & A

### Screen Snap From Online We-Chat Workshop

Special Thanks to the Government of Canada's Emergency Community Support Fund lead by Employment and Social Development Canada (ESDC) the Canadian Red Cross (CRC)



OK, we probably end here today, and if you have any questions, you can ask questions in the group or contact Rene

OK, 那今天大概就到这里我们可能就结束了, 然后如果大家有什么问题的话, 可以在群里提问, 或者可以私信我, 或者给瑞内都可以, 然后我会尽量的解答的, 如果大家有需要的话也可以打电话给我或者微信我都行的好吗? 谢谢大家拜拜。

谢谢老师! Thank you, teacher!

谢谢老师! Thank you, teacher!

非常感谢君君老师 Carrie和Sandy的支持 Thank you very much Julia, Carrie and Sandy for your support

鱼油氧化是什么原因呢? What is the cause of fish oil oxidation?

谢谢老师! Thank you, teacher!

它是胶囊啊! It is a capsule!

ACPN主持人Sandy Liang 谢谢Julia, 谢谢大家! Thank you Julia, thank you everyone!

怎么知道它氧化了是与保质期有关吗? How do you know if it is oxidized is related to the shelf life?

请君君老师告诉我 Teacher Julia, please tell me

瑞内 Renée @zijin 氧化了的味道是那种哈拉味的 The oxidized taste is that of Hara

胶囊 打开 可以闻一下 Open the capsule, you can smell it

我想如果我的鼻子能闻到哈喇味, 那问题已经很严重了 I think if my nose can smell halal, the problem is already serious. is it?

ACPN主持人Sandy 谢谢大家! 我们明天下午六点前会离开本群, 如果还有问题的听众朋友可以发在群 If any questions, you can post them in the group. There will be a Q&A time tomorrow afternoon

zijin 明天下午几点? What's the Q&A time tomorrow afternoon?

瑞内 Renée @zijin 我回答的没有那么专业了。明天再听下答疑。 My answer is not so professional. I'll listen to Q&A tomorrow.

zijin 好的。瑞内! 因为我在服用这个鱼油, 所以很想了解得清楚一点。对不起, 打扰了

Ok. Rene! Because I am taking this fish oil, I want to understand it more clearly. I'm sorry to disturb you.

Establishing this connection is not easy.

Do you have a clinic?

你看诊吗? Please write down your contact information

请你写一下怎么联系你

瑞内 Renée 感谢 营养师君君内容丰富的讲解。可能有些老人家需要对某些知识点要听下回放去重复的理解和消化。有几位群友是为家人特意进群来听的, 如果有具体的问题请提出来。

Thanks for the informative explanation. Maybe some elderly people need to listen to the replay to understand and digest certain knowledge points. Several groups came to listen specifically for their families. If you have specific questions, please ask.

今天的讲座对我帮助很大! 谢谢老师的精心准备。谢谢瑞内和主持人! Today's lecture helped me a lot! Thank you teacher for your careful preparation. Thank you Rene and the host!

@zijin 您的问题问得很好啊。当然是越详细越好。 Your question is very good. Of course, the more detailed the better.

I know you prepared for a long, long time. 我知道你准备了很久很久。

我只是做了联络, 君君老师和Carrie是做了很多准备。 I just made contact. Teacher Junjun and Carrie made a lot of preparations.

这个联络并不容易。

Group Announcement For Chinese Senior Wellness Group Hello everyone, this is an online event organized by Aijingge Library, specifically for the elderly during the new crown epidemic.

# New Wellness Program for Community

## Link Science to Community

Shop Smart . Manage Wellness S.E.S.E - Simply.Easily.Scientifically.Efficiently

### Examples of Designed Topic for Life Cycle Wellness Management

1. **Case Study: Link Science and Manage Wellness in Daily Life**
2. **Understand Individual Health Needs**
3. **Develop and Implement Wellness Plans, and Manage Wellness Easily, Simply & Scientifically**
  - The History of Inflammation & Immunology
  - Immune Response to Food, Inflammation & Disease/Scientific Choice of Food
  - Immune Response to Food/Elevated, Borderline & Normal/Scientific Choice of Food
  - Mineral Balance - Nutritional Mineral Ratios & Health
  - Life Cycle Health Care with Omega-3 & Testing
  - Blood, Immunity & Immune Nutritional Foods & Efficacy Nutrients
  - How Can We Eat Healthy And Delicious ?
  - About Auto-intoxication & Solutions
  - **Case Study** - Macro-nutrients and Insulin Resistance & Low-Carb Sugar-Free Cookies /Observing the history of scientific development, catch internal changes & grasping the fundamentals of health
  - Case Study - Cholesterol & Cardiovascular Health - Nutrition Care
  - Case Study - The Truth About Cholesterol
  - Case Study - Dietary Salt and Hypertension
  - Case Study - Hypertension Is Complicated - Case Study
  - Case Study - Nutritional Balance & Iron-Deficiency Anemia
  - Case Study - Healthy Eating Lifestyle For Modern Family
  - Case Study - Family Nutrition & Healthy Growth of Children
  - Functional Juice with Fruits & Vegetables

### Implement Wellness Plans

#### Understand Science behind Industries for Food Safety, Quality, Functional Nutrients, and Smart Shopping

- Natural health product regulations in Canada and how to evaluate the quality of a natural health product, maintain a calm, wise judgment , Understand the Science & Information behind our Foods
- Six Vital Steps Help Understand Food Safety, Quality & Efficacy Wellness Care
- Comparison of Regulations in different countries - Understand Food Safety, Quality & Efficacy Nutrients from **Global** Vision & Smart Shopping
- How to Filter Health Products - Screen health products Guided by Science
- Case Study – Gain insight into the Products & Smart Shopping
- **Know Canada:** Canadian Berries & Efficacy Nutrients - Healthy Food Developments in Canada
- Fiber, Oats & Efficacy Nutrients - Canada's Contribution to Functional Food
- Fiber Science & Canada's Contribution to Global Health
- Dietary Fibres in our Daily Life

Manage  
Wellness S.E.S.E  
Simply.Easily  
Scientifically  
Efficiently





Dr. Rafik Ragheb,  
Med Lab Program Chair-Anderson College  
Medical Laboratory Technician Program Chair at Anderson  
College, a Clinical Scientist, Biochemist (CSCC) and AACC in  
USA, a licensed MLT, and Faculty for Laboratory Medicine.



## The History of Inflammation

The history of inflammation goes back to thousands of years. The history of inflammation is long and colorful, with descriptions of this process dating back to the ancient Egyptian and Greek cultures. Terms, like edema, which are still used to describe inflammation, were introduced by Hippocrates in the 5th century BC. He also regarded inflammation as an early component of the healing process after tissue injury. Aulus Celsus, a Roman writer who lived between 30 BC and 45 AD, described the main four signs of inflammation as redness, warmth, swelling, and pain.

**The 20th century was marked by rapid advancements in understanding the nature and underlying mechanisms of the microvascular responses to inflammation.** The development of new in vivo models of inflammation, methods to capture and store images of the microcirculation, and the application of mathematical and engineering approaches to quantify variables such as leukocyte adhesion, vasomotor function, and vascular permeability allowed the field to move forward at a greatly accelerated pace. This period also brought new chemical methods that enabled the discovery of different inflammatory mediators and coagulation factors. With the advent of the electron microscope came the first descriptions of the fine structure of the endothelial cell and other components of the vessel wall. In recent years, important additions to the armamentarium of inflammation researchers have come from the fields of molecular biology and immunology.

### References:

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- Granger DN, Rodrigues SF, Yildirim A, Senchenkova EY. Microvascular responses to cardiovascular risk factors. Microcirculation. 2010; 17: 192–205.10.1111/j.1549-8719.2009.00015.x.
- Palade GE, Simionescu M, Simionescu N. Structural aspects of the permeability of the microvascular endothelium. Acta Physiol Scand Suppl. 1979; 463: 11–32.

News on Web: <https://cmidinc.ca/news-and-events>

Topic on National Nutrition Day: Dr. Rafik Ragheb addressed the impact of nutrition on the immune system functions and why it is important to test for specific inflammatory markers (Cytokines). This highlights the importance of screening our body's immune response to monitor, intervene and diagnose diseases such as cancer, dementia, diabetes, cardiovascular and lipid disorders.

Any Substance (including foods) entering the Body  
will Stimulate our Immune System  
to Produce an Immune Response which may Damage our Immunity

Choose  
Foods  
Scientifically

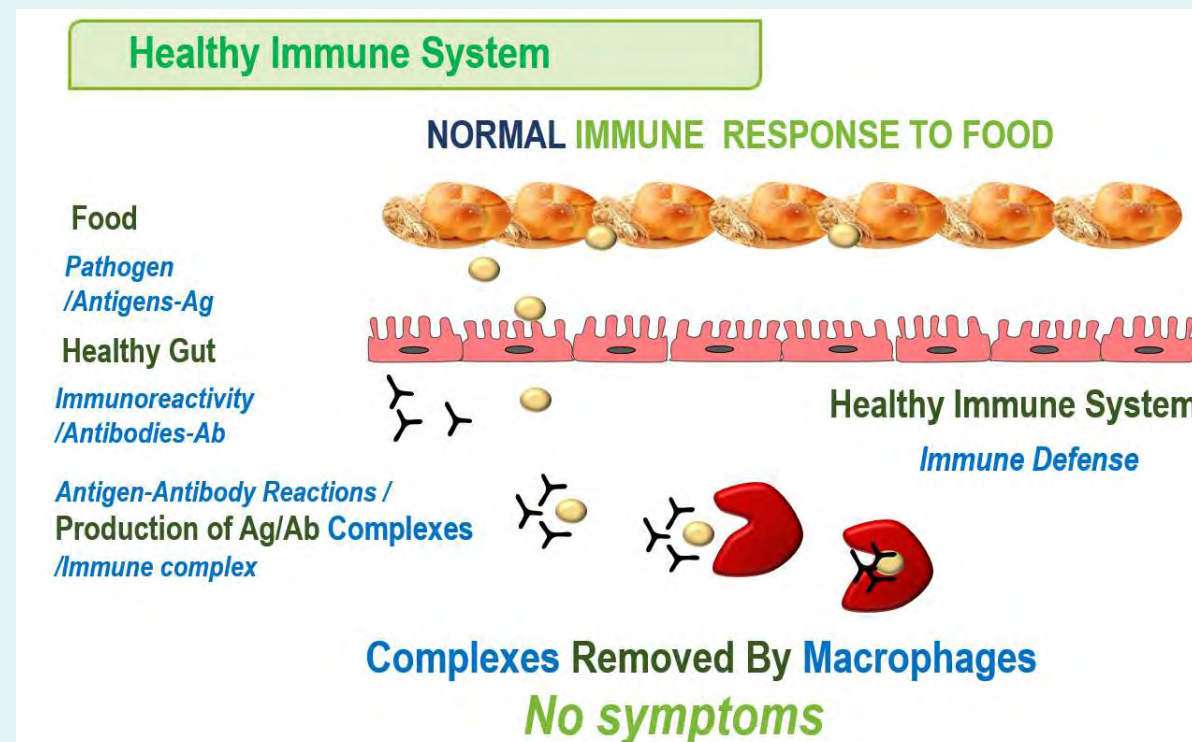
Immune Response to Food, Inflammation & Disease / Scientific Choice of Food

Any substance (including food) entering the body will stimulate immune system to produce an immune response

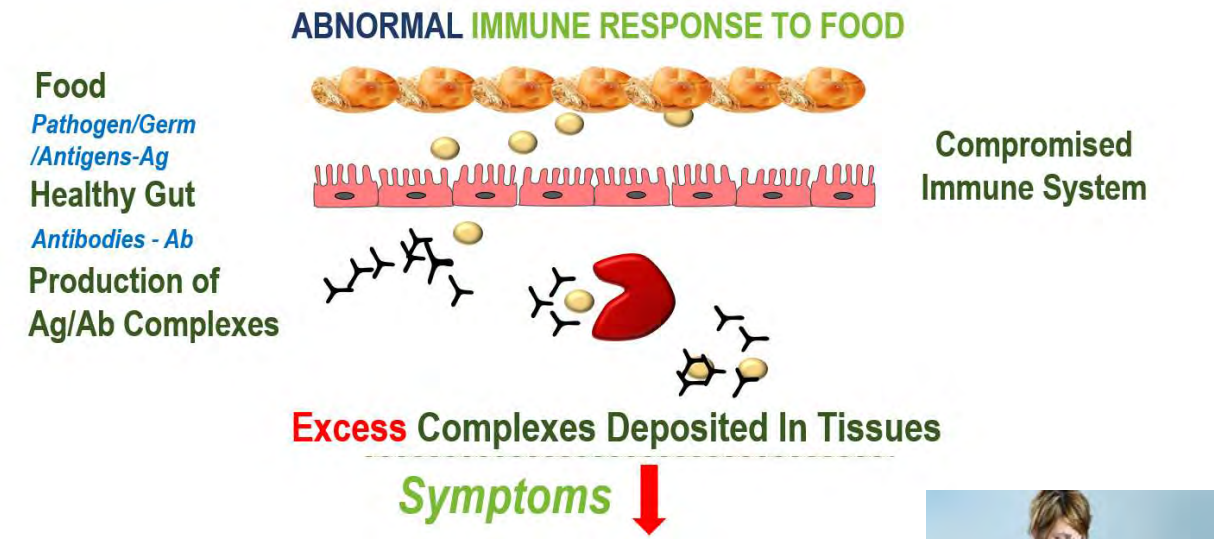
- Immune response causes inflammation in the body
- Different foods cause different levels of inflammation
- Long-term low-level, insensible, systemic inflammation brings disease
- Modern scientific tests such as Food Sensitivity Test (FST), Immunoglobulin G/ IgG Test which help scientifically select foods - avoid foods that cause higher inflammation (High Antibody Food). For Example, if the test just shows there are elevated levels of antibodies to yeast found in food(High Antibody Food)and therefore that foods containing yeast should be avoided or replace with a similar food to reduce the risk of diseases.

Food sensitivities (intolerance) are not food allergies, but rather a condition that can cause symptoms over a long period of time. The slow development of food sensitivity symptoms often means there is not an obvious link between foods eaten and symptoms, and as a result they are difficult to diagnose. This makes food sensitivity reactions very different from food allergies, where reactions are usually noticeable immediately and easily diagnosed.

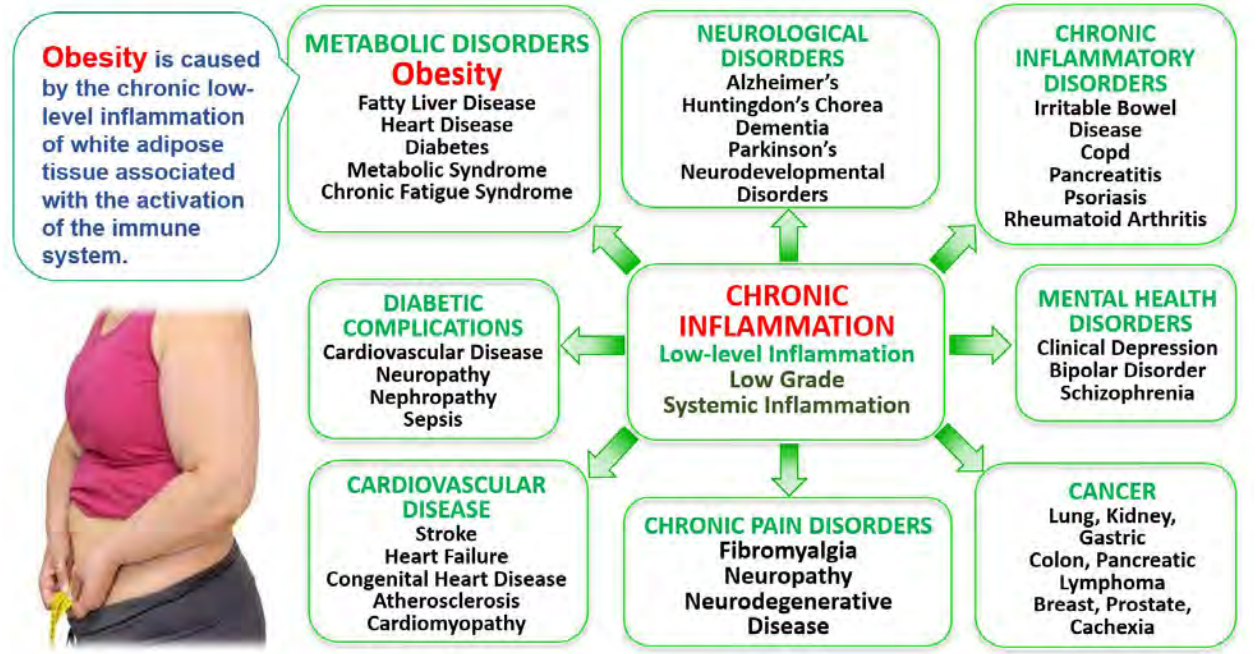
Pathogen(cause of disease) - an infectious microorganism or agent, or simply a germ, such as a virus, bacterium, protozoan, prion, viroid, or fungus.



Compromised Immune System



INFLAMMATION IN CHRONIC DISEASE



# Choose the Right Foods to Boost our Immunity Avoid the Foods which may Damage our Immunity

Choose  
Foods  
according to  
Wellness Needs

## Immune Response to Food/Elevated, Borderline & Normal Scientific Choice of Food

### Elevated / High Antibody Food

ELEVATED (≥30 U/ml)	BORDERLINE (24-29 U/ml)	NORMAL (≤23 U/ml)
<b>DAIRY / EGG</b>		
0 Alpha-Lactalbumin	33 Egg White	39 Milk (Cow)
28 Beta-Lactoglobulin	7 Egg Yolk	17 Milk (Goat)
5 Casein	0 Milk (Buffalo)	78 Milk (Sheep)
<b>GRAINS (Gluten-Containing)*</b>		
84 Barley	22 Malt	27 Wheat
0 Couscous	15 Oat	9 Wheat Bran
8 Durum Wheat	7 Rye	
16 Gliadin*	2 Spelt	
<b>GRAINS (Gluten-Free)</b>		
12 Amaranth	0 Millet	0 Tapioca
4 Buckwheat	1 Polenta	
103 Corn (Maize)	14 Rice	
<b>FRUIT</b>		
3 Apple	18 Guava	3 Pear
0 Apricot	3 Kiwi	3 Pineapple
11 Avocado	4 Lemon	44 Plum
4 Banana	10 Lime	6 Pomegranate
0 Blackberry	0 Lychee	0 Raisin
5 Blackcurrant	3 Mango	4 Raspberry
0 Blueberry	2 Melon (Galia/Honeydew)	4 Red Currant
0 Cherry	3 Mulberry	0 Rhubarb
34 Cranberry	2 Nectarine	2 Strawberry
2 Date	1 Olive	2 Tangerine
8 Fig	6 Orange	2 Watermelon
3 Grape (Black/Red/White)	1 Papaya	
2 Grapefruit	2 Peach	
<b>VEGETABLES</b>		
6 Artichoke	2 Cauliflower	32 Potato
4 Arugula	21 Celery	14 Quinoa
0 Asparagus	1 Chard	23 Radish
20 Bean (Broad)	9 Chickpea	1 Shallot
0 Bean (Green)	2 Chicony	5 Soy Bean
43 Bean (Red Kidney)	4 Cucumber	9 Spinach
24 Bean (White Haricot)	0 Eggplant	24 Squash (Butternut/Carnival)
1 Beet	1 Fennel (Leaf)	5 Sweet Potato
1 Broccoli	3 Leek	1 Tomato
13 Brussels Sprout	28 Lentil	1 Turnip
3 Cabbage (Red)	1 Lettuce	0 Watercress
16 Cabbage (Savoy/White)	2 Onion	0 Yucca
0 Caper	104 Pea	4 Zucchini
0 Cauliflower	0 Brussels (Green/Red/Yellow)	
<b>FISH / SEAFOOD</b>		
3 Anchovy	16 Herring	4 Scallop
44 Barnacle	11 Lobster	0 Sea Bream (Gilthead)
8 Bass	8 Mackerel	4 Sea Bream (Red)
9 Carp	5 Monkfish	4 Shrimp/Prawn
1 Caviar	65 Mussel	14 Sole
36 Clam	19 Octopus	13 Spirulina
33 Cockle (Saltwater Clam)	24 Oyster	6 Squid
4 Cod	0 Perch	1 Swordfish
0 Crab	32 Periwinkle	3 Trout
6 Cuttlefish	3 Pike	6 Tuna
0 Eel	5 Plaice	1 Turbot
19 Espaguetto (Spaghetti Algae)	10 Razor Clam	17 Wakame (Seaweed)
3 Haddock	11 Salmon	
12 Hake	2 Sardine	
<b>MEAT</b>		
3 Beef	8 Ostrich	4 Turkey
3 Chicken	5 Ox	0 Veal
0 Duck	0 Partridge	3 Venison
4 Goat	3 Pork	9 Wild Boar
3 Horse	2 Quail	
4 Lamb	7 Rabbit	
<b>HERBS / SPICES</b>		
0 Anise	2 Dill	6 Nutmeg
1 Basil	9 Garlic	5 Parsley
2 Bayleaf	6 Ginger	0 Peppercorn (Black/White)
6 Cayenne	122 Ginkgo	6 Peppermint
0 Chamomile	5 Ginseng	4 Rosemary
1 Chili (Red)	6 Hops	0 Sage
0 Cilantro	1 Licorice	0 Saffron
4 Cinnamon	8 Marjoram	0 Tarragon
0 Clove	8 Mint	0 Thyme
0 Cumin	27 Mustard Seed	0 Vanilla
16 Curry (Mixed Spices)	0 Nettle	
<b>NUTS / SEEDS</b>		
41 Almond	15 Hazelnut	0 Rapeseed
23 Brazil Nut	0 Macadamia Nut	3 Sesame Seed
34 Cashew Nut	12 Peanut	19 Sunflower Seed
1 Coconut	8 Pine Nut	13 Tiger Nut
8 Flax Seed	37 Pistachio	6 Walnut
<b>MISCELLANEOUS</b>		
47 Agar	3 Cocoa Bean	1 Tea (Black)
27 Aloe Vera	7 Coffee	8 Tea (Green)
10 Cane Sugar	58 Cola Nut	2 Transglutaminase
0 Carob	2 Honey	33 Yeast (Baker's)
1 Chestnut	19 Mushroom	87 Yeast (Brewer's)

ELEVATED FOODS (≥30 U/ml)		
122 Ginkgo	47 Agar	34 Cranberry
104 Pea	44 Plum	33 Cockle (Saltwater Clam)
103 Corn (Maize)	43 Bean (Red Kidney)	33 Egg White
87 Yeast (Brewer's)	41 Almond	33 Yeast (Baker's)
84 Barley	39 Milk (Cow)	32 Periwinkle
78 Milk (Sheep)	37 Pistachio	32 Potato
65 Mussel	36 Clam	
58 Cola Nut	34 Cashew Nut	
BORDERLINE FOODS (24-29 U/ml)		
28 Beta-Lactoglobulin	27 Mustard Seed	24 Oyster
28 Lentil	27 Wheat	24 Squash (Butternut/Carnival)
27 Aloe Vera	24 Bean (White Haricot)	
NORMAL FOODS (≤23 U/ml)		
23 Brazil Nut	12 Hake	6 Cuttlefish
23 Radish	12 Peanut	6 Ginger
22 Malt	11 Avocado	6 Hops
21 Celery	11 Lobster	6 Mackerel
20 Bean (Broad)	11 Salmon	6 Monkfish
19 Espaguetto (Spaghetti Algae)	10 Cane Sugar	6 Nutmeg
19 Mushroom	10 Lime	6 Orange
19 Octopus	10 Razor Clam	6 Peppermint
19 Sunflower Seed	9 Carp	6 Pomegranate
18 Cabbage (Savoy/White)	9 Chickpea	6 Squid
18 Guava	9 Spinach	6 Tea (Green)
17 Milk (Goat)	9 Wheat Bran	6 Thyme
17 Wakame (Seaweed)	8 Bass	6 Tuna
16 Curry (Mixed Spices)	8 Durum Wheat	6 Walnut
16 Gliadin*	8 Fig	5 Blackcurrant
16 Herring	8 Flax Seed	5 Casein
16 Oat	8 Marjoram	5 Ginseng
15 Hazelnut	8 Ostrich	5 Ox
14 Quinoa	8 Pine Nut	5 Parsley
14 Rice	7 Coffee	5 Plaice
14 Sole	7 Egg Yolk	5 Soy Bean
13 Brussels Sprout	7 Rabbit	5 Sweet Potato
13 Spirulina	7 Rye	4 Arugula
13 Tiger Nut	6 Artichoke	4 Banana
12 Amaranth	6 Cayenne	4 Barnacle

NORMAL FOODS ...continued		
4 Buckwheat	2 Date	0 Bean (Green)
4 Cinnamon	2 Dill	0 Blackberry
4 Cod	2 Grapefruit	0 Blueberry
4 Cucumber	2 Honey	0 Capser
4 Goat	2 Melon (Galia/Honeydew)	0 Carob
4 Lamb	2 Nectarine	0 Chamomile
4 Lemon	2 Onion	0 Cherry
4 Lychee	2 Peach	0 Cilantro
4 Raspberry	2 Quail	0 Clove
4 Red Currant	2 Sardine	0 Couscous
4 Rosemary	2 Spelt	0 Crab
4 Scallop	2 Strawberry	0 Cumin
4 Sea Bream (Red)	2 Tangerine	0 Duck
4 Shrimp/Prawn	2 Transglutaminase	0 Eel
4 Turkey	2 Watermelon	0 Eggplant
4 Zucchini	1 Basil	0 Garlic
3 Anchovy	1 Beet	0 Macadamia Nut
3 Apple	1 Broccoli	0 Milk (Buffalo)
3 Beef	1 Caviar	0 Millet
3 Cabbage (Red)	1 Chard	0 Mint
3 Chicken	1 Chestnut	0 Nettle
3 Cocoa Bean	1 Chili (Red)	0 Partridge
3 Grape (Black/Red/White)	1 Coconut	0 Pepper (Green/Red/Yellow)
3 Haddock	1 Fennel (Leaf)	0 Peppercorn (Black/White)
3 Horse	1 Lettuce	0 Perch
3 Kiwi	1 Licorice	0 Pineapple
3 Leek	1 Olive	0 Raisin
3 Mango	1 Papaya	0 Rapeseed
3 Mulberry	1 Polenta	0 Rhubarb
3 Pear	1 Shallot	0 Saffron
3 Pike	1 Swordfish	0 Sage
3 Pork	1 Tea (Black)	0 Sea Bream (Gilthead)
3 Sesame Seed	1 Tomato	0 Tapioca
3 Trout	1 Turbot	0 Tarragon
3 Venison	1 Turnip	0 Vanilla
2 Bayleaf	0 Alpha-Lactalbumin	0 Veal
2 Carrot	0 Anise	0 Watercress
2 Cauliflower	0 Apricot	0 Wild Boar
2 Chicory	0 Asparagus	0 Yuca

# Mineral Ratios are as Important as Nutritional Balance

## Mineral Balances and Ratios - Nutritional Balance & Wellness Management

Mineral Balances and Ratios

### Mineral ratios are as important as Nutritional balance, if not more important than mineral levels.

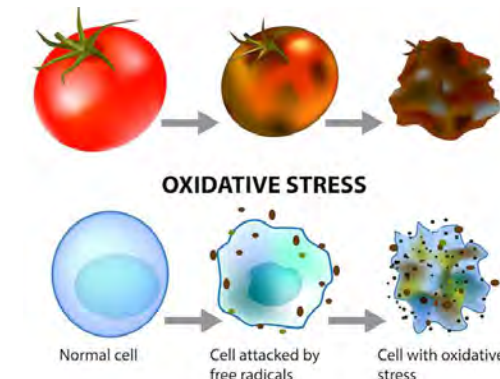
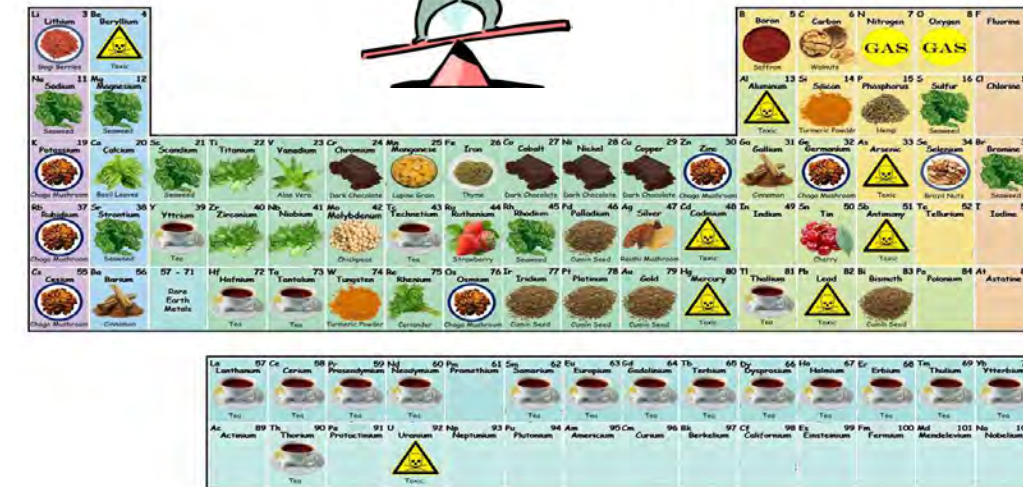
Continuing research indicates that metabolic dysfunction occur not necessarily as a result of a deficiency or excess of a particular mineral level, but more frequently from an abnormal balance (ratio) between the minerals. Due to this complex interrelationship between the minerals, it is extremely important that imbalances be determined. Once these imbalances are identified, corrective therapy may then be used to help re-establish a more normal biochemical balance.

Copper may be seen at a normal level, however, if the zinc/copper ratio is low, one may experience symptoms of elevated copper. This principle also applies to toxic metals. For example, if the cadmium level is only slightly elevated but the zinc level is low the cadmium toxicity is more serious. Rubidium Activates and Mobilizes Lithium which helps with Bi-Polar Manic Depression. High rubidium and low potassium will paralyze the muscles. The presence of lead will replace calcium and affect calcium absorption. Low zinc/copper ratio may lead to abnormal metabolism, liver cirrhosis, liver as-cites...

Sodium/potassium ratio is important for health. Sodium is often blamed for boosting blood pressure while potassium is praised for keeping it in check. It really doesn't make sense to look at these two minerals separately, though, since they work in tandem throughout the body. The ratio of sodium to potassium in the diet may be more important than the amount of either one alone. The sodium/potassium ratio will show stress levels, possible diseases of the immune system, such as rheumatoid arthritis.

"Free Radicals" is a term used for Damaged Cells. It is a problem because it often injures the cell, damaging the DNA which then creates the seed for disease. As we age, we have more Free Radicals. This is what causes aging and destruction of cells, and eventually the body. At some point, the Free radicals destroy more cells than the body can repair. This is called "Oxidative Stress". High Iron in the Hair has been linked with Oxidative Stress. Antioxidants neutralise harmful Free Radicals in the Body and are able to keep your cells Healthy and Youthful.

Scientifically proven, Mineral balance is essential to avoid the following symptoms: ADHD in children (attention deficit hyperactivity disorder), learning disabilities, tics in children and adolescents, autism, inability to lose weight, family diet and malnutrition, fatigue, headaches, Restlessness, depression, immune system (such as low selenium), cortisol (stress hormone), glutathione (free radicals), hormones, hypertension, allergies, Alzheimer's disease, infertility, miscarriage, joints Inflammation (such as low sulfur), rheumatoid arthritis, insomnia, blood sugar (type 2 diabetes), digestive diseases (digestion, etc.), forgetfulness or weakness, headache/migraine, muscle weakness, alopecia Parkinson's disease, bone Osteoporosis [fragile bone], heart failure, Parkinson's disease, occupational disease (welder, etc.), schizophrenia...



## Sleep

Our Bodies work in Cycles  
From 11:00pm – 2:00am  
– Important Time

Only during Sleep, can our bodies automatically "Detoxify"

Lack of Sleep will make your Body Acidic, causing loss of: Calcium, Magnesium, Barium and Strontium  
If we miss this opportunity, we don't get it back and start accumulating metals and changing our body chemistry



## Stress

The Silent Killer

The problem with Stress is that you don't know the Damage it is doing until it is too Late !!!



# Manage Wellness with Omega-3 Scientifically

## Life Cycle Wellness Care with Omega-3 & Testing

Wellness  
Care with  
Omega-3

By Professor Bruce Holub

Pioneer of Omega-3 theoretical research - Health Benefits and industrial applications application

Founder of the DHA/EPA Omega-3 Institute

University Professor Emeritus , Department of Human Health & Nutritional Sciences at the University of Guelph

Have Served as :

President of the Canadian Society for Nutritional Sciences

Chairman of the Nutrition Task Force for the Heart and Stroke

Foundation of Ontario.



### IS THERE A TOLERABLE UPPER LIMIT FOR OMEGA-3 INTAKE IN ADULTS?

Average daily intakes of DHA/EPA (sum) in N.Am. and Japan approach 130 and 900 mg, respectively. The FDA (US) has considered that up to 3000 mg /day may be generally safe for healthy adults.

### IS THE DHA/EPA IN FISH DESTROYED BY COOKING?

Most studies have not reported any measurable or quantitative drop in DHA/EPA when cooking fish. While very minor losses may be occurring, they are usually not detectable by conventional GLC technology which is used to measure fatty acid contents. On a per 100 gram fish basis, the amount of EPA/DHA often increases in heated (cooked) fish as compared to raw fish because there is a release of moisture from the fish with heating.

### WHAT IS THE PREFERRED RATIO OF DHA/EPA IN SUPPLEMENTS?

The vast majority of studies which have evaluated and supported the benefits of consuming omega-3 fatty acid as DHA/EPA in fish or as supplements for cardiovascular events and related mortality have used mixtures of these two omega-3 fatty acids. All fish contain a mixture of both omega-3 fatty acids (DHA + EPA) and most studies using supplements (particularly the long-term studies) have used mixtures of these two fatty acids. In the more recent JELLIS study from Japan (see recent reports on our website) utilized a concentrate of EPA only. Since mixtures of DHA/EPA have been used in the vast majority of long-term studies related to cardiovascular events and mortality, the 1999 Workshop in Bethesda, Maryland (invited international experts) recommended an intake of 650 mg of omega-3 fatty acid in the form of DHA/EPA combined each day for normal healthy people with at least one-third of the mixture being represented by either EPA or DHA. In other words, a recommended DHA: EPA ratio ranging from 2:1 on one extreme all the way to 1:2 on the other. Long-term studies over many years which look at cardiovascular disease and related events (including mortality) would be ideal wherein various mixtures DHA+EPA were studied and compared to purified concentrates of EPA or purified concentrates of DHA. Due to prohibitory costs, it is unlikely that such studies will be initiated for many years to come. It should be noted that the focus has been on DHA in infant formula preparations in view of the fact that DHA accumulation in the brain and retina (eye) of young infants has been directly implicated with respect to a structure-function relationship for DHA in optimal neuronal and visual functioning, respectively.



# Life Cycle Wellness Management

Wellness Management for Weight, Immunity, Seniors, Pregnancy, Maternal & Baby, Growth, Cardiac, Gout, Diabetes, Bone Joint, Cholesterol, Hypertension, Iron-Deficiency Anemia, by Functional Juice with Fruits & Vegetables, Etc.



## Blood, Immunity & Immune Nutritional Foods

Dr. Heyu Ni & Reseach Team  
Dr. Zach Liu , Jade Sullivan, Reid Gallant, Daniel Mackeigan  
University of Toronto Scientist of Canadian Blood Services Centre  
for Innovation - Platform Director for Hematology, Cancer and  
Immunological Diseases



- 1. Can autoimmune diseases be reversed?**  
Yes, some of them can be reversed.
  
- 2. The autoimmune disease symptoms won't disappear unless harsh medications are enforced. Is this true?**  
Not true, significant of them can disappear or be controlled at the certain level that needn't treatment.
  
- 3. Will you ignore side effects when you treat an autoimmune disorder?**  
No, nobody can ignore the possible side effects of the treatment, some of side effects can be very severe. For example, many immunosuppressive drug could increase the risk of infections.□
  
- 4. Does improving digestion and gut health affect the progression of autoimmune disorders?**  
Yes, it may affect the progression of autoimmune disorders.
  
- 5. Does gluten-free make any difference to autoimmune disorders?**  
It may make some differences based on the type/severity of the autoimmune disorders. For example, some kinds of autoimmune diseases target gluten directly, like celiac disease. Additionally, gluten has some common influences on immune system, which may also contribute to other autoimmune diseases. It is suggested to consult a physician to evaluate whether a patient are suitable for gluten free diet.
  
- 6. Which one is dominant to autoimmune disorders, genes or environment?**  
It is hard to say and it is based on the specific autoimmune disorder. In most of the cases both genetic and environmental factors contribute to the development of autoimmune disorders.
  
- 7. How can we improve our immune system?**  
Food, living environment, life style, and infections etc. are all able to affect immune system. To treat a disease, many immune therapies can improve our immune system.

# Immune Nutritional Supplements

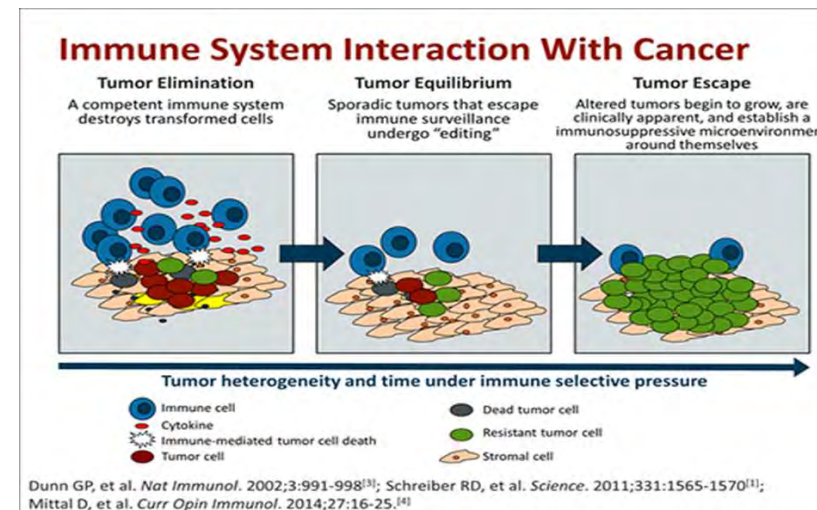
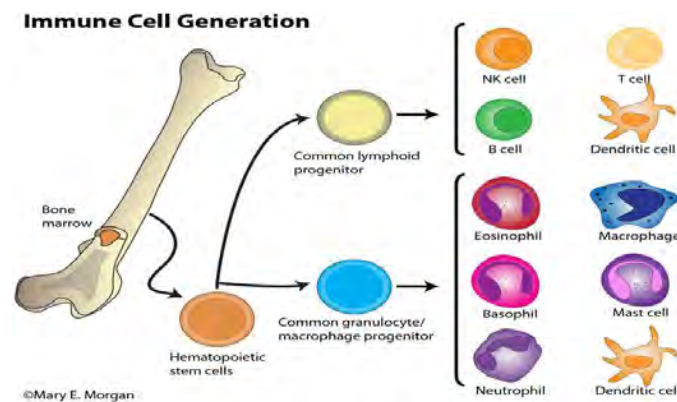


Choose Foods Scientifically

## Immunity in Cancer & Immune Nutritional Supplements by Team Dr.Ni, Dr. Zach Liu

### Immune cells

In our blood, there is a large amount of different immune cells. These cells and their secreted protein, such like antibodies and cytokines composed our immune system.



**Cancer Immunotherapy**  
Immunotherapy has become a promising new form of cancer treatment. In 2018, James Allison and Tasuku Honjo, won the Nobel Prize in Medicine for their research on cancer immunotherapy.



### Immune Surveillance of Cancer

Immune system can not only defend against external pathogens, but also protect us from internal threats, such as aging and cancer cells. Cancer cells are usually immunogenic, and can be cleared by immune system. Immune equilibrium: the cancer cells cling to survival, and immune cells fight back. Cancer at equilibrated phase is consider as dormancy.

### Immunonutrition Supplements & Efficacy Nutrients

Immunonutrition supplements is a kind of products that can modulate immune activity, and have been demonstrated to improve the outcome on cancer patients with surgery. A formula usually contains Efficacy Nutrients such as  $\omega$ -3 fatty acids, glutamine, amino acids, anti-oxidants, and nucleotides.

Table 1  
Nutrients, which influence immunity and their effects and mechanisms of action

Immunonutrient	Influence on inflammation and immune function	Possible mechanism(s)
Omega 3 polyunsaturated fatty acids	Inhibits inflammation, enhances T cell functions	Changes in membrane phospholipids
Sulphur amino acids and related compounds	Inhibits inflammation enhances T cell function	Suppression of oxidant effects and NFkB activation
Arginine	Enhances T cell function	Stimulation of growth hormone production
Glutamine	Stimulates T cell function, inhibits inflammation?	Stimulation of glutathione synthesis?

Possible mechanism(s)	Effects
Changes in membrane phospholipids	Changes in cytokine and lipid-derive mediator production
Suppression of oxidant effects and NFkB activation	Maintenance of glutathione status
Stimulation of growth hormone production	Altered nitric oxide production?
Stimulation of glutathione synthesis?	Enhances cell proliferation, increase

### Food help Boost Immunity

Fruit & vegetables (vitamin C): kiwi, Citrus fruits, etc  
Vitamin D: sunshine  
 $\omega$ -3 fatty acids: salmon/tuna  
Almonds, Oats, Green tea, Yogurt, Mushrooms, Garlic, Ginger, Shellfish, high zinc...

# What is the best way to consume processed and preserved meats ?

Eat Food  
Wisely

## How Can We Eat Healthy And Delicious ?



Dr. Timothy Sly is an epidemiologist and professor at Ryerson University School of Public Health, who has been working, teaching, and researching about food-borne illness for more than thirty years.

He has also lectured and taught in Brazil, the UK, Philippines, Taiwan, and the Caribbean Region.

He has written more than 80 publications, made numerous media appearances, and delivered more than thirty presentations at conferences, including at the Association of South East Asian Nations (ASEAN) in 2015. Although he has retired from full-time teaching at the University, he continues to teach courses in research methods and health risks to international-trained physicians, and is currently writing a book.

He is a Quora 'top writer' (9 million readers), mainly in the area of food and illness.

## How Can We Eat Healthy And Delicious ?

Are processed and preserved meats harmful for our body? Can they cause cancer? Can we still eat them? What is the best way to consume them?

There are several questions here. Let's deal with "preserved" meats first. This has caused a vast amount of confusion and misinterpretation. Let's try and sort it out. The World Health Organization reported in 2018 that the International Agency for Research on Cancer (IARC) had found that consumption of 50 g of meat that had been preserved with sodium nitrite/nitrate per day for a lifetime increased the risk of colo-rectal cancers by about 18 percent. (This includes ham bacon, salami, corned beef, and all pork or beef meat products that are naturally red even after cooking). This does not mean "18 times the risk". Nor does it mean that "18% of sausage/bacon eaters will die each year"! This is just a relative risk of 1.18 compared to someone who does not eat 50 g/d over a lifetime, which is taken as 1.00.

The carcinogens (cancer-causing chemicals) in the preserved meat are the nitrosamines, created from the reaction between sodium nitrites or sodium nitrate mixture and the amino acids naturally in the meat. Formation of nitrosamines can be influenced by the method of heating (cooking), and can also take place in your stomach. Nitrosamines are class-1 human carcinogens, as also are several of the products of smoking cigarettes. But the magnitude of the risks are very different.

Both cigarette smoke and nitrosamines are class-I carcinogens but in very different degrees.

Finally, you can reduce the risk by taking ascorbic acid at the same time you eat the bacon, ham, salami, corned beef, etc. There is good evidence that in the presence of vitamin C (ascorbic acid) in the stomach, nitrosamine production is inhibited (reduced or eliminated). So, orange juice with bacon, tomato with corned beef, lettuce with ham). Also, don't overcook bacon; minimal heating is best. Now let's look at "processed" foods. Do you peel and slice an apple, or cook your chicken? All of these are examples of processing, as are washing, cooking, salting, mixing, cooling, straining, adding sugar or salt. To insist on unprocessed foods, you have to be prepared to eat raw chicken along with unwashed, raw potatoes, or uncooked rice!

Processing usually make food safe, available, convenient, easy to digest, easy to store, and nutritious. In general, it is usually better and cheaper (where choice is available) to obtain and prepare foods that have been minimally processed, and are closer to the original form and state. But as the world struggles to feed the growing billions, we shall see more compounded/processed foods (such as frozen false "crab" or "fish-ball") which provide convenient protein with little time and work for the consumer.

## About Auto-intoxication & Solutions



### Dr. David Rowland

David Rowland is Canada's foremost expert in holistic nutrition, having written 11 books on this subject, some of which are used as texts in nutrition schools. He is the publisher of Nutritiapedia®, the free on-line nutritional encyclopedia -- and creator of the Nutri-Body® assessment method favored by practitioners for determining biochemical weaknesses. David is also court recognized as an expert in complementary medicine.

### About Auto-intoxication & Solutions

Auto-intoxication is the pollution of our bodies from within. Every cell takes in nutrients and also discharges wastes. If waste products are not eliminated, they accumulate and prevent cells from receiving the nourishment they need. The best diet in the world and the best food supplements cannot help cells that are strangling to death in their own excretions. Toxicity causes decay and disease. There are two important steps to every sound nutritional program: (1) Detoxify. (2) Rebuild. To bypass the first is to undermine the second.

### Stop Polluting

We overload our bodies with substances that have little or no food value. Coffee, tea, tobacco smoke, drugs, artificial coloring's, preservatives, artificial flavorings, agricultural chemicals, and airborne pollutants contribute to toxic overload without providing any nourishment. Alcohol, refined flours, refined sugars, soft drinks, and adulterated fats also contribute to toxic overload. These are the "empty calorie" foods that contribute no essential nutrients but make the body work extra hard just to deal with them.

Even healthy foods can create a toxic burden if we eat too much of them – if we consume more than our bodies can digest, absorb, assimilate and excrete. Foods to which you are allergic or intolerant add even more toxicity, since the body cannot metabolize them properly. The first and most important step to detoxification is to stop putting toxins into the body. Consume only healthy food (preferably organic) and only in amounts to satisfy genuine hunger.

### Water

Water provides the medium in which all biochemical reactions take place in the body. Most of our body-weight is water. Water is needed to eliminate wastes through the kidneys and colon. Most of us do not drink enough water. It is a very healthy habit to consume from two to three liters (quarts) of purified water – preferably reverse osmosis. Make it a habit. Thirst is not a reliable indicator since by the time you feel thirsty, your body is already in the beginning stages of dehydration.

#### Elimination Through the Skin

The skin has often been referred to as the "third kidney" because of its ability to release toxins through perspiration. Having a sauna twice per week is a great aid to detoxification. Infrared saunas are even better than conventional saunas for this purpose, since infrared rays have the ability to penetrate up to 3 cm. below the skin. Another method to draw toxins through the skin is to have a hot bath in which you have added one cup of sea salt and one cup of apple cider vinegar. Make the bath water as hot as you can stand and stay in it for as long as you can stand it.

**“You’re sick and fat because you eat too much and you’re lazy.”**

Science  
History  
& Wellness  
Care

## Macro-nutrients and Insulin Resistance & Low-Carb Sugar- Free Cookies



### Ms. Jennifer Liu

Certified Professional Nutritionist

Senior Yoga Instructor

Specialty: Metabolic Syndrome, Weight Loss & General Health

"During 15 years' work experience in health and fitness I saw hundreds clients. They try to involve many activities, but they couldn't. They just didn't have the energy because they have diabetes and they were on diet.

They always feel hungry and even though they couldn't lose any weight, actually they gain weight every year. But people still blame them that they are too lazy and they ate too much. Can a diabetic really enjoy snacks or even dessert and how? "

Observing the history of scientific development,  
watching the internal changes &  
grasping the fundamentals of Wellness



**“You’re sick and fat because you eat too much and you’re lazy.”**

# Life Cycle Wellness Management

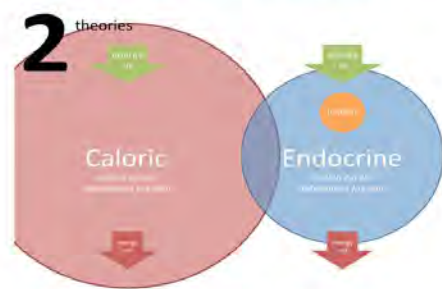
Wellness Management for Weight, Immunity, Seniors, Pregnancy, Maternal & Baby, Growth, Cardiac, Gout, Diabetes, Bone Joint, Cholesterol, Hypertension, Iron-Deficiency Anemia, by Functional Juice with Fruits & Vegetables, Etc.

**Eat Foods Wisely**

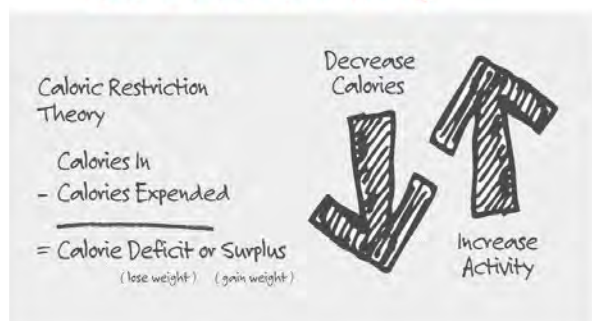
## Macro-nutrients And Insulin Resistance & Low-Carb Sugar- Free

Cookies

### 2 Weight Loss Theories



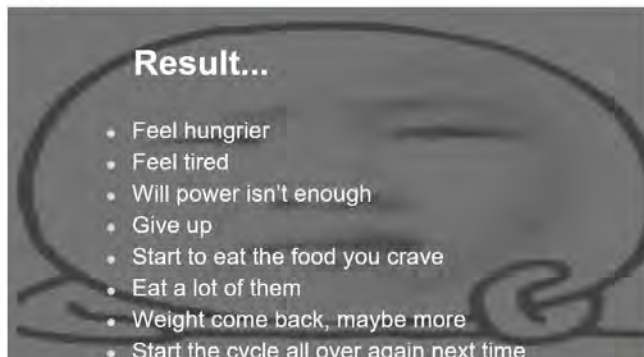
#### Caloric Restriction Theory



So...



- Diet
- Gym
- Eat less
- .....
- Calorie Deficit
- Used to 3000/day
- Only getting 1500/day



### A Short History



#### The "Lipid Hypothesis"

After President Eisenhower's 1955 heart attack, based on what is now considered flawed research, Dr. Ancel Keys' work became the foundation for a body of science implicating fat as a major risk factor for heart disease.



#### The War on Fat

By the 1980s, the anti-fat message was so embedded in modern medicine and nutrition that it became nearly impossible to challenge it-even when studies showed that replacing fat with carbs resulted in no reduction in heart disease. As a result, beef disappeared from dinner tables, and eggs were replaced with breakfast cereals.

The Problem.....  
When you take out the fat, it must be replaced with something.  
And that "something" was carbohydrates and sugar.



#### Science-Based-Truth

The overconsumption of carbs and sugar is chiefly responsible for the epidemics of obesity and Type 2 diabetes.

Nutrition Facts	
Serving Size 1/2 cup (113g)	
Servings 1 (See Chart)	
Amount Per Serving	
Calories 80	Calories from Fat 0
<b>% Daily Value*</b>	
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	0%
Cholesterol 0mg	0%
Sodium 4.00mg	18%
Potassium 150mg	5%
Total Carbohydrate 6g	2%
Dietary Fiber 5g	4%
Sugars 5g	
Protein 14g	
Vitamin A 4%	Vitamin C 2%
Calcium 10%	Iron 0%

#### The Problem.....

Consumer thinking became simple: "Fat is dangerous, and these products have no fat; therefore they must be healthier."  
Grocery shelves filled with non-fat yogurts, low-fat TV dinners, and reduced-fat cheese-flavored crackers.

消費者的思維變得簡單：  
"脂肪是危險的，這些產品沒有脂肪；因此這樣的產品一定更利於健康。"  
雜貨架上擺滿了無脂酸奶，低脂電視晚餐和低脂奶酪味餅乾。

#### Today



#### Science-Based-Truth

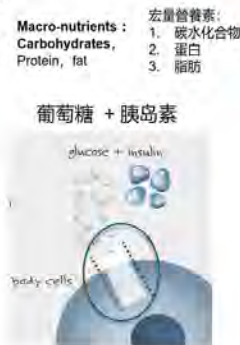
The Problem.....  
When you take out the fat, it must be replaced with something. And that "something" was carbohydrates and sugar.  
"Four decades later, the results are in -this experiment was a complete failure. We cut the fat, but by almost every measure, Americans are sicker than ever." The overconsumption of carbs and sugar is chiefly responsible for the epidemics of obesity and Type 2 diabetes.

問題是.....  
當你取出脂肪時，必須更換一些東西。那些東西是碳水化合物和糖。  
"四十年後，結果出現了。這個實驗完全失敗了。我們削減脂肪，但幾乎每一項措施，美國人都比以往任何時候都更加嚴重。"  
碳水化合物和糖的過度消耗是導致肥胖和2型糖尿病流行的主要原因。

#### Insulin Resistance

A condition in which the cells of the body don't respond as well to insulin.

- Insulin resistance**
- heart disease
  - cancer
  - fatty liver
  - Polycystic ovary syndrome (PCOS)
  - sarcopenia
  - migraines
  - diabetes
  - body fat
  - dementia
  - stroke
  - osteo-arthritis



#### 胰岛素抵抗

身體細胞對胰島素沒有反應的情況。  
胰岛素抵抗  
心臟病  
癌症  
脂肪肝  
多囊卵巢綜合症 (PCOS)  
少肌症  
偏頭痛  
糖尿病  
體內脂肪  
癡呆  
中風  
骨性關節炎

#### Pancreas

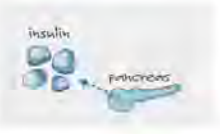
Gland behind stomach that secretes a hormone called insulin.

**Insulin**  
Insulin prevents blood sugar levels from being too high or too low. Insulin helps our bodies use sugar (glucose) from the foods that we eat for energy -- AND insulin helps store excess glucose, as fat, for future use.



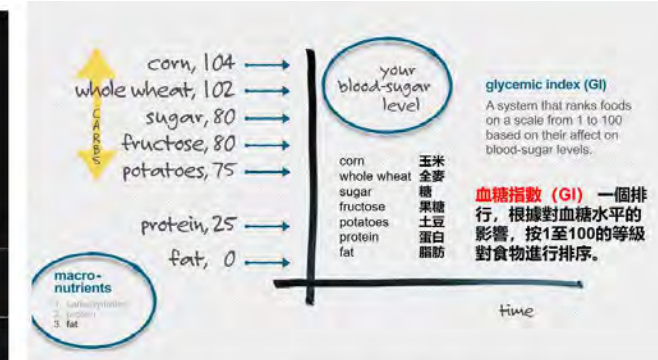
#### 胰腺

胃后面的腺体分泌一种叫做胰岛素的激素。  
胰岛素  
• 胰岛素可以防止血糖水平过高或过低。  
• 由胰腺制成的激素，可以让我们的身体使用我们吃的食物中的糖（葡萄糖）来获取能量，或者储存葡萄糖以备将来使用（作为脂肪）。

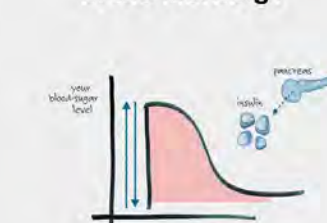


So, what causes insulin resistance?  
The things we eat and drink  
那麼，什麼導致胰島素抵抗？與我們飲食相關的因素。

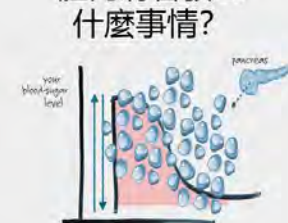
- 血糖水平 = 100 mg / dL
1. 血液循環需要7升血液
  2. 一匙糖如果重7克
  3. 你的血液只保持一勺糖的含量



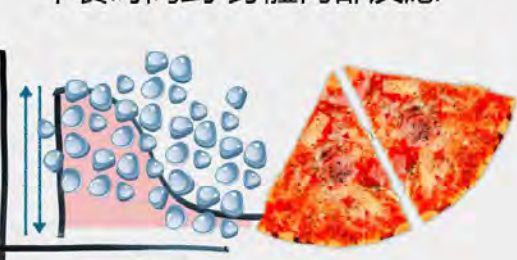
#### What Happened After Eating Muffin In the Morning?



#### 早餐如果吃迷你蛋糕之後，體內將會發生什麼事情？



#### It Is Lunch Time! 午餐時間到-身體內部反應



# Know World, Know Canada

1) What are the Canadian Contributions of Science/Industry to the World/Human Health?

Page 23 - Discover Insulin, Page 38 - Functional Foods/Canadian Berries, Page 39 - Oats.

2) How could Canadian Health-related Sciences / Industry/Natural Products / Contributions Guide/Benefit Benefit our Wellness Management Efficiently?



## Macro-nutrients And Insulin Resistance & Low-Carb Sugar- Free Cookies

**Over and Over, Day After Day, Month After Month.....**  
**INSULIN RESISTANCE!**  
 日復一日, 月復一月, 年復一年...  
**胰島素抵抗!**

What If for Breakfast That Day, Instead of the Muffin, You Ate Something Didn't Spike Your Blood Sugar...  
 如果早餐不是迷你蛋糕, 取而代之的是低升糖指數的食物.....

宏量營養素:  
 1. 碳水化合物  
 2. 蛋白  
 3. 脂肪

74% carbs  
 5% protein  
 21% fat

07% carbs  
 25% protein  
 74.3% fat

選擇低升糖指數的食物做糕點  
 柑橘纖維  
 葵花油脂  
 亞麻仁籽油脂  
 豌豆蛋白  
 雞蛋  
 奶油  
 抗性糊精

Choose low-glycemic index foods for pastry citrus fiber sunflower oil linseed seed oil pea protein egg cream resistant dextrin

宏量營養素:  
 1. 碳水化合物  
 2. 蛋白  
 3. 脂肪

What kind of Food Decision you are going to make?  
 您將會做什麼樣的飲食決策?

糖尿病代餐  
 主要成分:  
 柑橘纖維  
 葵花油脂  
 亞麻仁籽油脂  
 豌豆蛋白  
 雞蛋  
 奶油  
 抗性糊精

4 Consequences:  
 1. Gain Weight  
 2. Hunger  
 3. Inhibited Fat Release  
 4. Insulin Resistant

飲食Muffin之後給身體帶來的4種後果:  
 1. 體重增加  
 2. 飢餓  
 3. 抑制脂肪釋放  
 4. 胰島素抵抗

4 Consequences:  
 1. Lose Weight  
 2. Not As Hungry  
 3. More Energy  
 4. Become "Fat Adapted"

飲食低升糖飲食之後給身體帶來的4種結果:  
 1. 減肥  
 2. 不是很餓  
 3. 更多能量  
 4. 成為"脂肪適應"

### Mr. L

- ▶ 44 years old.
- ▶ More than 20 years of type II diabetes.
- ▶ Family history of type II diabetes.
- ▶ Insulin dosage is over 100, 3 times a day.



### Typical Diet of Mr. L

- ▶ Breakfast: pastry, noodles, soak cooked rice
- ▶ Lunch and dinner: typical Chinese foods, including rice/noodles, vegetables, and meats.
- ▶ Beverage: 1-2 can pop a day, sweetened soy milk everyday as water.
- ▶ Snack: chips, biscuit, crackers, fruits etc.



### After Using Low Carbs Cookies Instead of His Regular Breakfast

- ▶ Morning test: BG 6.4
- ▶ 8:30am 3 low carbs cookies
- ▶ 10:30am BG 6.2
- ▶ No insulin injection that morning



### References:

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3. Amatruda JM, Statt MC, Welle SL: Total and resting energy expenditure in obese women reduced to ideal body weight. The Journal of clinical investigation 1993, 92:1236-1242.
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5. Ebbeling CB, Swain JF, Feldman HA, Wong WW, Hachey DL, Garcia-Lago E, Ludwig DS: Effects of dietary composition on energy expenditure during weight-loss maintenance. JAMA : the journal of the American Medical Association 2012, 307:2627-2634.
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### Frederick G. Banting



Sir Frederick Grant Banting KBE MC FRS FRSC was a Canadian medical scientist, physician, painter, and Nobel laureate noted as the **co-discoverer of insulin and its therapeutic potential**. In 1923 Banting and John James Rickard Macleod received the Nobel Prize in Medicine. [Wikipedia](#)  
**Born:** November 14, 1891, [Alliston, New Tecumseth](#)  
**Died:** February 21, 1941, [Musgrave Harbour](#)  
**Years of service:** 1916–1918  
**Education:** [University of Toronto](#) (1910–1922),  
**Awards:** [Nobel Prize in Physiology or Medicine](#), [Flavelle Medal](#), [John Scott Legacy Medal and Premium](#)

Thanks for Watching!

## The Art of Macro-nutrients

These sugar-free low-carb cookies & coconut flour cakes have the perfect texture. With a touch of flavor, they're one of the best tasting low carb keto cookies & cakes around. Diabetic friendly cookies!



# Life Cycle Wellness Management

Wellness Management for Weight, Immunity, Seniors, Pregnancy, Maternal & Baby, Growth, Cardiac, Gout, Diabetes, Bone Joint, Cholesterol, Hypertension, Iron-Deficiency Anemia, by Functional Juice with Fruits & Vegetables, Etc.



## Do we need Cholesterol ? Cholesterol & Cardiovascular Disease (CVD) - Nutrition Care

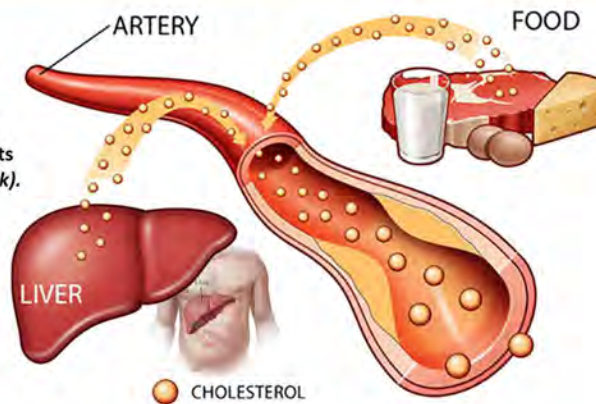
Mr. Daniel MacKeigan  
BSc, MSc candidate  
Ni Lab –  
St. Michael's Hospital



### What is Cholesterol?

- Do we need cholesterol?
  - Yes, for our cells and to produce hormones.
- Where does cholesterol come from?
  - 75% comes naturally from your liver.
  - 25% comes from animal food products (ie. cheese, yogurt, pork, chicken, milk).

我们需要胆固醇吗？  
是的，对于我们的细胞和产生激素。  
  
胆固醇来自哪里？  
75%来自肝脏。  
25%来自动物性食品（即奶酪，酸奶，猪肉，鸡肉，牛奶）。



### Cholesterol Carriers in the Blood

It's as if LDL deposits cement in blood vessels, while HDL removes it.

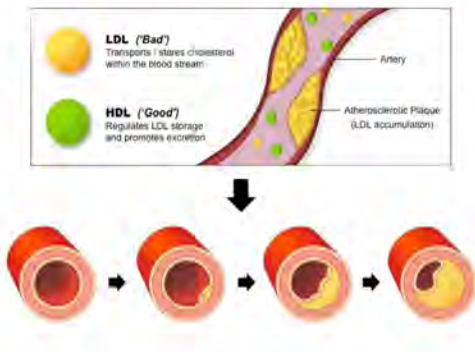


HDL is able to do this because of a protein called apolipoprotein A-I  
就像LDL在血管中沉积水泥一样，而HDL则将其去除。  
血液中的胆固醇载体  
由于一种名为载脂蛋白A-I的蛋白质，HDL能够做到这一点

### Cholesterol Carriers in the Blood

Cholesterol is insoluble in blood and must be transported using special proteins...

- Low Density Lipoprotein (LDL)
  - Aka: 'bad cholesterol'
  - Transports cholesterol from the liver to our cells via blood.
  - When in excess, it deposits cholesterol into vessel walls causing narrowing of blood vessels.
- High Density Lipoprotein (HDL)
  - Aka: 'good cholesterol'
  - Transports harmful cholesterol in vessel walls to the liver for degradation.



低密度脂蛋白 (LDL)  
阿卡: '坏胆固醇'  
通过血液将胆固醇从肝脏输送到我们的细胞。  
当过量时，它会将胆固醇沉积到血管壁中，导致血管变窄。  
高密度脂蛋白 (HDL)  
阿卡: '好胆固醇'  
将血管壁中的有害胆固醇转运至肝脏以降解。

nature COMMUNICATIONS

ARTICLE  
DOI: 10.1038/s41467-018-05206-0 OPEN

Also found in HDL and reduces risk of CVD

**Apolipoprotein A-IV binds  $\alpha$ IIb $\beta$ 3 integrin and inhibits thrombosis**

Xiaohong Ruby Xu<sup>1,2,3,4</sup>, Yiming Wang<sup>1,2,5</sup>, Rehemani Adili<sup>2</sup>, Lining Ju<sup>6,7,8</sup>, Christopher M. Spring<sup>2</sup>, Joseph Wuxun Jin<sup>2,5</sup>, Hong Yang<sup>2,5</sup>, Miguel A.D. Neves<sup>2</sup>, Pingguo Chen<sup>2,5</sup>, Yan Yang<sup>2,5</sup>, Xi Lei<sup>2</sup>, Yunfeng Chen<sup>7,9</sup>, Reid C. Gallant<sup>1,2</sup>, Miao Xu<sup>1,2</sup>, Hailong Zhang<sup>2</sup>, Jina Song<sup>2,5</sup>, Peifeng Ke<sup>4,10</sup>, Dan Zhang<sup>2,4</sup>, Naadiya Carrim<sup>2,5</sup>, Si-Yang Yu<sup>2,11</sup>, Guangheng Zhu<sup>2</sup>, Yi-Min She<sup>1,2</sup>, Terry Cyr<sup>1,2</sup>, Wenbin Fu<sup>3,4</sup>, Guoqing Liu<sup>1,3</sup>, Philip W. Connelly<sup>1,2</sup>, Margaret L. Rand<sup>1,4</sup>, Khosrow Adeli<sup>1,15</sup>, John Freedman<sup>1,2,16</sup>, Jeffrey E. Lee<sup>1</sup>, Patrick Tso<sup>1,7</sup>, Patrizia Marchese<sup>1,8</sup>, W. Sean Davidson<sup>1,7</sup>, Shaun P. Jackson<sup>8,18</sup>, Cheng Zhu<sup>6,7,9</sup>, Zaverio M. Ruggeri<sup>1,8</sup> & Heyu Ni<sup>1,2,5,16,19</sup>

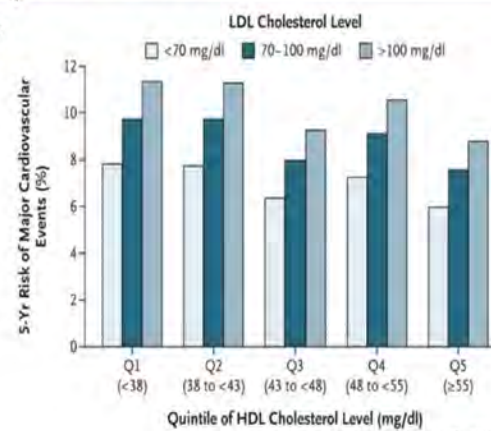
### LDL & HDL Concentrations Affect Incidence of CVD

LDL和HDL浓度影响CVD的发生率

- Higher concentration of HDL in blood is correlated with decreased risk of CVD.
- Lower concentration of LDL in blood is correlated with decreased risk of CVD.

This can help guide us on what to eat!...

血液中较高浓度的HDL与CVD风险降低相关。  
血液中较低浓度的LDL与降低CVD风险相关。  
这有助于指导我们吃什么! ...



### How to Prevent CVD?

Unsaturated foods decreases risk of CVD because it raises HDL concentration



如何预防心血管疾病?  
不饱和食物可降低心血管疾病的风险，因为它可提高高密度脂蛋白浓度

饱和食物和反式脂肪会增加心血管疾病的风险，因为它会增加低密度脂蛋白的浓度

Saturated foods and trans fats increases risk of CVD because it raises LDL concentration





# Life Cycle Wellness Management

- 1) Determine Individual Wellness Needs - Wellness Tests & Scientific Assessment,
- 2) Wellness Plan - Micro To Macro, Efficacy Care / Optimize Solutions & Smart Match/  
When We Face Too Much Industry Information, Enhanced Efficacy Nutrients Management
- 3) Implement Plans by Smart Shopping According to Individual Wellness Needs, wellness plans.

**Eat Foods Scientifically**

## Busting Myth / The Truth About Cholesterol



**Mr. Alex Campbell**

Functional Medicine Certified Health Coach  
McMaster University - B.Sc. Mathematics  
Before 2016: Credit Systems Manager

**Myth 1: We need to be careful about eating too much cholesterol.**

**Busting Myth 1: Do we need to be concerned about cholesterol in food?**

- No direct link between the amount of cholesterol we eat and atherosclerosis/CVD
- Fluctuations in blood lipoprotein levels (chylomicron, VLDL, LDL, sdLDL\*, and HDL) are the result of what we eat, mostly influenced fat, cholesterol and carbohydrates
- Every cell in the body can make it's own cholesterol (exceptions, adrenal and gonads) and will if we don't get enough from our diet
- Impossible to get too much cholesterol from a natural, healthy diet
- There may be certain genetic conditions (e.g., hypercholesterolemia) that require us to be cautious about external sources of cholesterol. These are small percentage of the population

**Myth 2: LDL is bad cholesterol, and HDL is good cholesterol.**

**Busting Myth 2: LDL, HDL (and VLDL , triglycerides) cannot be bad or good**

- Blood levels of LDL and HDL correspond to the demands of our body (e.g., what we eat)
- Eating refined carbohydrates (and high glycemic foods), will interfere with the LDL processing. LDL eventually gets oxidized to sdLDL which sets of an inflammatory process
- Eating fat and cholesterol in the absence of insulin spiking foods does not adversely affect HDL, VLDL or LDL
- Healthy diet and lifestyles lead to higher blood levels of HDL, lower blood levels of LDL and lower blood levels of triglycerides
- Cholesterol is found at atherosclerosis sites because of the macrophage immune response that tried to clear sdLDL from arteries

**Myth 3: A high blood cholesterol level is bad for health.**

**Busting Myth 3: High blood cholesterol level is NOT bad for health**

- Looking at overall lipoprotein levels is meaningless
- Helpful to know our HDL/LDL/triglyceride ratios and -C vs. -P counts
- Individuals with relatively higher HDL to LDL and triglyceride levels have better long-term health outcomes
- An increase in total cholesterol as we age is predictive of lower health risks
- Generally, lipoprotein levels go up as we age (this is normal and desirable)
- No need to be concerned with high lipoprotein levels if we avoid high glycemic, processed food (especially refined carbohydrates)
- We need to pay attention to insulin and inflammation - track levels of hsCRP, HbA1C as well as HDL, LDL, and triglycerides over time

### What is cholesterol?

- A sterol molecule, steroid alcohol - type of lipid.
- An organic molecule that is ESSENTIAL to life for all vertebrate animals
- Often confused with lipoproteins
- Lipoproteins: chylomicron, VLDL, LDL, sdLDL\*, and HDL

### Why is cholesterol important?

- Used to make hormones
- Used to make Vitamin D (more like a hormone)
- Used to make bile salts (fat digestion)
- Critical for the structure and proper function of cell membranes
- Part of the bodies repair mechanism
- Almost every cell in the human body can make cholesterol
- \* Lipoproteins are used to transport triglycerides (fat) and cholesterol via the bloodstream

### Case Study -

### High-Fat-Low-Carb (HFLC) and Cholesterol Male, born September 1971

- **Before December 2017**
- Medications: None
- Supplements: Vitamin D3, Methyl-B's (6,9,12) to support methyl cycle and high homocysteine levels (18->10)
- Stress: Moderate (occasionally high)
- Sleep hygiene: Poor - less than 6 hours/night, sleep not continuous
- Movement: Occasional HIIT, swimming, volleyball - less than 3 days/week active
- **After March 2018**
- Medications: None
- Supplements: Vitamin D3, Methyl-B's (6,9,12) to support methyl cycle and high homocysteine levels
- Stress: Low to moderate
- Sleep hygiene: Good to excellent 7 - 9 hours per night on average
- Movement: Non-sedentary, HIIT, fencing, swimming - active 6 to 7 days per week

### Diet Before:

2 to 3 eggs per day, fruit, nuts, seeds, oatmeal, oat bran, fish, lamb, beef, chicken, bacon, daily vegetable smoothie. Will frequently (2 to 3 times per week) have potato chips, ice cream, pie and other baked goods. Occasionally (once a week) will have pizza, other fast food, eat out at restaurants

### Diet After:

4 to 6 eggs per day, nuts, seeds, fish, lamb, beef, chicken, bacon, daily vegetable smoothie. 2 to 5 servings of fruit per week. No grains (wheat, rice, oats). No fast food. No processed food at home. Dramatically reduced baked goods consumption and other junk consumption - less than once per month, usually on special occasions like birthday parties. Total restaurant visits since March 2018: five.

TESTS	RESULT	FLAG	UNITS	REFERENCE	INTERVAL
<b>NMR LipoProfile</b>					
LDL Particle Number	<b>Before</b>	<b>After</b>			
LDL-P	<b>1464</b>	754	nmol/L	<1000	
			Low	< 1000	
			Moderate	1000 - 1299	
			Borderline-High	1300 - 1599	
			High	1600 - 2000	
			Very High	> 2000	
Lipids	<b>Before</b>	<b>After</b>			
LDL-C	<b>109</b>	79	mg/dL	0 - 99	
			Optimal	< 100	
			Above optimal	100 - 129	
			Borderline	130 - 159	
			High	160 - 189	
			Very high	> 189	
Comment:	LDL-C is inaccurate if patient is non-fasting.				
HDL-C	<b>70</b>	90	mg/dL	>39	
Triglycerides	<b>90</b>	46	mg/dL	0 - 149	
Cholesterol, Total	<b>197</b>	178	mg/dL	100 - 199	
LDL and HDL Particles					
HDL-P (Total)	<b>34</b>	31.6	umol/L	>=30.5	
Small LDL-P	<b>500</b>	<90	nmol/L	<=527	
LDL Size	<b>21.2</b>	21.2	nm	>20.5	

# Dietary Salt and Hypertension

- by Mr. Reid Gallant

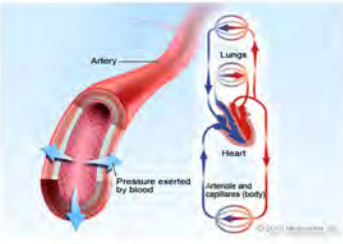


UWO BMSc  
U of T MSc  
Dr. Heyu Ni Laboratory  
St. Michael's Hospital  
University of Toronto  
Li Ka Shing Knowledge Institute



## Blood Pressure

- What is blood pressure?  
Created by contraction of heart  
血压  
什么是血压?  
由心脏收缩创造



## What is Hypertension?

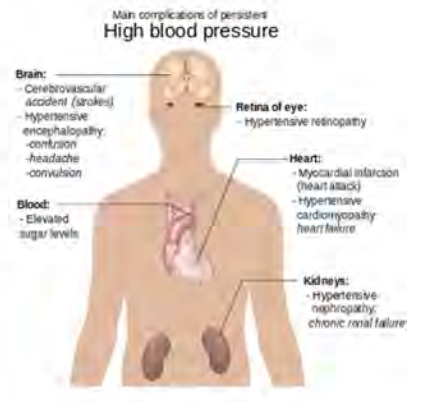
- When the blood pressure is above 140/90 mmHg = BAD
- Heart & blood vessels are being overworked!

什么是高血压?  
当血压高于140/90 mmHg = BAD时  
心脏和血管正在过度劳累!



## Why is hypertension bad?

- Long-term high blood pressure risk factor for disease in many organs:  
HEART  
BRAIN  
ARTERIES  
EYES  
KIDNEYS



高血压为什么不好?  
许多器官疾病的长期高血压危险因素:  
心, 脑, 动脉, EYES, 肾脏

## What causes hypertension?

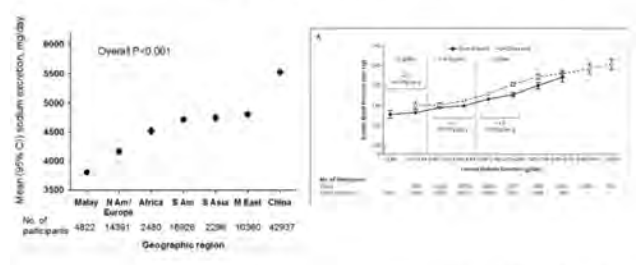
- Genetics 5-10% of cases
- Lifestyle 90-95% of cases  
DIET: Salty foods, Alcohol, and Excess body weight  
SALT → ↑ BLOOD PRESSURE → HEART ATTACK

什么引起高血压?  
遗传学占5-10%  
生活方式90-95%的案例  
饮食: 咸食, 酒精和体重过重  
盐血压心脏病发作



## EATING SALT INCREASES BLOOD PRESSURE

吃盐会增加血压



Mente, A. NEJM, 2014

## How can you lower blood pressure?

- "Let food be thy medicine and medicine be thy food."**  
Hippocrates
- Eating healthily and decreasing salt intake!  
Less than 2300 - 3000mg per day
  - Monitoring blood pressure
  - Staying active

你怎么能降低血压?  
"让食物成为你的药物, 药物就是你的食物."  
希波克拉底  
健康饮食, 减少盐的摄入量!  
每天少于2300 - 3000mg  
监测血压  
保持活跃

Nutrition Facts		Valeur nutritive	
Per 1 cup (250 mL) / par 1 tasse (250 mL)			
Amount		% Daily Value	
		% valeur quotidienne	
Calories / Calories	80		
Fat / Lipides	0 g	0 %	
Saturated / saturés	0 g	0 %	
+ Trans / trans	0 g		
Cholesterol / Cholestérol	0 mg		
Sodium / Sodium	115 mg	5 %	
Carbohydrate / Glucides	12 g	4 %	
Fibre / Fibres	0 g	0 %	
Sugars / Sucres	11 g		
Protein / Protéines	9 g		
Vitamin A / Vitamine A		15 %	
Vitamin C / Vitamine C		0 %	
Calcium / Calcium		30 %	
Iron / Fer		0 %	
Vitamin D / Vitamine D		45 %	

## Foods to improve blood pressure

食物可以改善血压



## Foods to avoid

要避免的食物



## Hypertension Is Complicated - Case Study By Ms. Yi



By Yi Han , CPN  
B.Sc.(Nutrition, McGill University)

### MR. WL

- **Age: 87**
- **No history of cigarette or alcohol intake**
- **Became hospitalized (feb.20<sup>th</sup>) due to fainted several times related to high blood pressure**

#### Current diagnosis

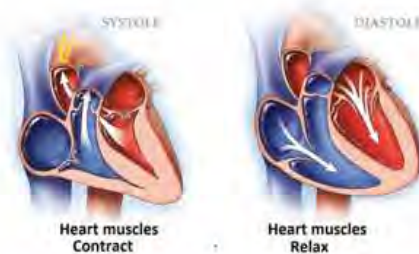
- Upper gastrointestinal bleeding
- Esophagitis
- Chronic atrophic gastritis with erosion
- Pulmonary infection
- **Hypertension**
- Hepatic dysfunction
- **Renal insufficiency**
- Gallstones with chronic cholecystitis
- Hepatic cyst
- Renal cyst



#### High blood pressure might be related to:

- Age (87 years old)
- Low potassium intake evidenced by low vegetable and fruit intake and low appetite
- High sodium intake

## HYPERTENSION



Blood Pressure Category	Systolic Blood Pressure	And	Diastolic Blood Pressure
Normal	<120 mm Hg	And	<80 mm Hg
Elevated	120-129 mm Hg	And	<80 mm Hg
Hypertension stage 1	130-139 mm Hg	Or	80-89 mm Hg
Hypertension stage 2	>140 mm Hg	Or	>90 mm Hg

## CAUSES & RISK FACTORS

- Age
- Race
- Family history
- Overweight or obese
- Physical inactive
- Using tobacco
- Too much salt (sodium) intake
- Too little potassium intake
- Too much alcohol intake
- Stress
- Certain chronic condition
  - Kidney diseases
  - Diabetes
  - Sleep apnea



## MEAL PLAN FOR MR. WL



- Grains
  - Mix whole wheat rice and white rice
- protein
  - Less red meat
  - Choose fish, chicken, and plant-based protein
  - Low fat dairy products
  - Some nuts intake
- More fresh vegetable and fruits
- Fats and oil
  - Healthy liquid and soft oil and fat, like olive oil
  - Less solid cooking oil
- Limited salt intake

# Life Cycle Wellness Management

- 1) Determine Individual Wellness Needs - Wellness Tests & Scientific Assessment,
- 2) Wellness Plan - Micro To Macro, Efficacy Care / Optimize Solutions & Smart Match/  
When We Face Too Much Industry Information, Enhanced Efficacy Nutrients Management
- 3) Implement Plans by Smart Shopping According to Individual Wellness Needs, wellness plans.

**Efficacy  
Management**

## Manage Hypertension - Meal Plans & Efficacy Nutrients Care

### MEAL PLAN FOR MR. WL



- Grains
  - Mix whole wheat rice and white rice
- protein
  - Less red meat
  - Choose fish, chicken, and plant-based protein
  - Low fat dairy products
  - Some nuts intake
- More fresh vegetable and fruits
- Fats and oil
  - Healthy liquid and soft oil and fat, like olive oil
  - Less solid cooking oil
- Limited salt intake

### Specific food

- Garlic
  - Fresh 4g
  - Aged garlic extract 600mg BID
- Sea vegetables 3-3,5g
- Dark chocolate 100g



### EFFICACY NUTRIENTS MANAGEMENT

Nutrients	Dosage	Nutrients	Dosage
Alpha lipoic acid with biotin	100-200mg BID	NAC	500mg BID
Arginine	2g BID	Olive leaf extract	500mg BID
Carnitine	1-2g BID	Pycnogenol	200mg
Taurine	1-3g BID	Quercetin	500mg BID
Chromogenic acids	150-200mg	Probiotics	10 CFU
Coenzyme Q10	100mg daily or BID	<b>Resveratrol (trans)</b>	250mg
Grape seed extract	300mg	Vitamin B6	100mg daily or BID
Hawthorne extract	500mg BID	Vitamin C	250-500mg BID
Melatonin (long acting)	3mg	D3 Vitamin D3	60ng/ml
Lycopene	10-20mg	Vitamin E	400IU

## RESULTS



Date	Systolic Blood Pressure	
Feb. 20 <sup>th</sup>	Keep high since Feb. 1 <sup>st</sup> Highest: 180 mmHg	<ul style="list-style-type: none"> <li>• Fainted</li> <li>• Became hospitalized for a week (Feb. 20<sup>th</sup> – Feb. 27<sup>th</sup>)</li> <li>• Increased antihypertensive medicine from 4 tablets to 5 tablets</li> </ul>
Feb. 22 <sup>th</sup>	160-180 mmHg	<ul style="list-style-type: none"> <li>• Took 80mg trans resveratrol daily during hospitalization</li> </ul>
Mar. 15 <sup>th</sup>	160-180 mmHg	<ul style="list-style-type: none"> <li>• Fainted again</li> <li>• Increased dosage of trans resveratrol (240mg)</li> <li>• Meal plan was implemented</li> </ul>
Mar. 18 <sup>th</sup>	Started to be reduced	
Mar. 22 <sup>th</sup>	130-140 mmHg	
Mar. 24 <sup>th</sup>	stable	<ul style="list-style-type: none"> <li>• Reduced antihypertensive medicine from 5 tablets to 4.5 tablets</li> </ul>
Apr. 1 <sup>st</sup>	stable	<ul style="list-style-type: none"> <li>• Reduced antihypertensive medicine form 4.5 tablets to 4 tablets</li> </ul>

## CONCLUSION

- An integrative approach to the treatment of hypertension
  - [Diet restriction](#)
  - [Exercise](#)
  - [Weight restriction](#)
  - [Improve lifestyle](#)
  - [Medication](#)
  - [Efficacy nutrition intervention](#)
- While using nutraceutical products, need to consult with pharmacist/family doctor about the dosage for proper usage and ensure there is no side effects with current medications

## REFERENCE

- Houston, M. (2018). Treatment of Hypertension with Nutrition and Nutraceutical Supplements: Part 1. *Alternative And Complementary therapies*. doi:10.1089/act201829191.mho
- Houston, M. (2019). Treatment of Hypertension with Nutrition and Nutraceutical Supplements: Part 2. *Alternative And Complementary therapies*. doi:10.1089/act201829197.mho

# Nutritional Balance & Iron-Deficiency Anemia

Case Study by Ms. Jade Sullivan, MSc, Dr. Ni's Team



In 2012, I started undergraduate studies at the University of Guelph in Guelph, Ontario (1hr drive from Toronto). Guelph has Ontario's only Veterinary College. I worked frequently with farm animals and chose to stop eating meat (vegetarian) and soon became a vegan.



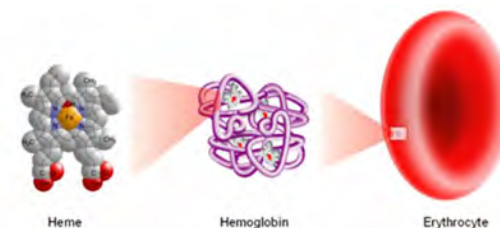
Vegans do not eat or use animal products  
No meat, fish, chicken, dairy or eggs



After a few months, I was feeling very fatigued and frequently short of breath. I visited the doctor and was diagnosed with iron-deficiency anemia

## Iron-Deficiency Anemia

Anemia: not enough healthy red blood cells  
There are many kind of anemia with different causes  
Red blood cells (erythrocytes) carry oxygen  
Iron (Fe) on heme binds oxygen  
Causes: blood loss, insufficient dietary iron, problems absorbing iron



## Iron-Deficiency Anemia

- 20 to 25% of world population is iron deficient
- More common in women
- Women use ~2x more iron than men, mostly due to menstrual cycle, pregnancy and breast feeding
- 8% of Canadian women (5% men) are iron deficient
- Most common in 12 to 19 year-old females (13% iron deficient)

## Symptoms

- Fatigue and weakness
- Shortness of breath
- Headache, dizziness, or lightheaded
- Pale skin
- Cold hands and feet
- Fast heart beat or chest pains
- Inflamed or sore tongue
- Craving for non-nutritive substances (e.g. ice, clay, dirt)
- Poor appetite (seen more commonly in infants or children)



## Prevention

1. Increase iron intake  
Eat more iron-rich food  
E.g. meat, chicken, seafood, dark leafy greens, legumes  
Medical Iron (taken as recommended by a doctor)
2. Increase iron intake  
Vitamin C taken with iron to increase absorption  
E.g. citrus fruit, broccoli, peppers, tomatoes, strawberries



# Life Cycle Wellness Management

- 1) Determine Individual Wellness Needs - Wellness Tests & Scientific Assessment,
- 2) Wellness Plan - Micro To Macro, Efficacy Care / Optimize Solutions & Smart Match/ When We Face Too Much Industry Information, Enhanced Efficacy Nutrients Management
- 3) Implement Plans by Smart Shopping According to Individual Wellness Needs, wellness plans.

Manage Weight in Daily Life

## Weight Management/Healthy Eating Lifestyle For Modern Family

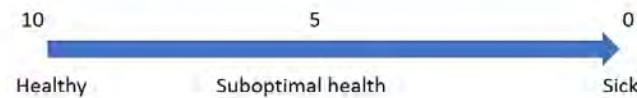


Ms. Kali Lo

- Register Nutritional Health Specialist
- Register Nutrition Consultant
- University of Toronto, B.Sc. in Health Science
- TSTCM, Diploma of Traditional Herbal Medicine
- Have been in Nutrition Industry for over 10 years.
- Help hundreds of clients loose weight & get better...

### Not Sick, does not mean you are HEALTHY

- Chronic illness – heart attack, cancer, diabetes, high cholesterol, stroke, cancer
- Emotional illness : anxiety, mood swings, depression
- Acute illness: flu, cold, fever, headache, tummy pain



### Cause us Sick

#### External Factors

- Polluted air
- Lack of water intake
- Lack of sleep
- Lack of exercise
- Stress from Work, Traffic, Financial, relationship ...

#### Internal Factors

- Emotional Stress
- Hormonal imbalance
- Lack of FUN
- Lack Personal space
- Lack Me Time
- Malnutrition

Maryann's medical history  
Age 56 – High school teacher, standing long time

#### Her Issues of complaints

- Rheumatoid arthritis
- Diabetes
- Osteosis
- Daily took 22 pills/ day (prescribe from MD)
- Pain level from 13/10, super pain
- Mobility is low

#### Original Diet & lifestyle

- Love to eat sweet: cookies, cracker, donuts
- 4 cups of coffee (Triple x Triple)
- Vegetarian
- Lack of sleep

### Human Basic Need

#### Ancient time

- Water
- Fresh food
- Air
- Sleep
- Movement
- Simple lifestyle



#### Modern lifestyle

- Coffee, Tea, Wine, soft drinks
- Fast food, junk food, process food
- Polluted Air
- Sleep deprivation
- Little Movement - ↓ workout
- Stress from Work
- Social life – Social media, text



### MaryAnn, age 56 Complaints – knee Pain

Before 306 lbs & 68.5"      After 273.5 lbs & 52"



### Healthy Eating Lifestyle

- **Carbohydrate:** Complex carb > simple carb  
More Fiber > Less starch  
- Vegetables, Fruits, Whole grains > white rice, white bread, white sugar
- **Protein:** Plant base protein > White Meats > Red Meat  
Tofu, Bean > Fish, Chicken, Seafood > Pork, Beef, Lamb
- **Fat:** Avocado, Nuts, Flax seeds, Olive oil, Coconut oil
- Limited salt intakes, no more than 3 grams
- Less Spices, use fresh fruits, no white sugar,
- No white bread, no white rice, no dairy



Result: 3 months Anti-inflammation program

- Pain level from 13/10, super pain → 4/10
- Dropped 16 inches
- Lost 33.5 lbs
- Medication from 22 pills down to 2 pills



### Supplements Anti-inflammation – for her pain

- Antioxidants (ORAC, Resveratrol, Vitamin C, E)
- Omega 3 ( DHA & EPA)
- Curcumin
- Glucosamine
- C3G
- Calcium (Calcium Carbonate, Calcium lactate, Calcium phosphate, Calcium Sulfate, Calcium Citrate )
- pH balance her body



### Gut health – 3 months dropped 16 inches, 33.5 lbs

- Fiber ( over 35 g/day)- improve her bowel movement
- Probiotic – build her immune system
- Multivitamin & Multimineral – improve metabolism
- Digestive Enzyme – helps her improve digestion process



Wish everyone have a healthier new you with your family

Start with a small adjustment in daily habit, within 21 days, you will makes a big impacts of your new healthy lifestyle.

- Fresh veggies and fruits > Process food, Junk & Fast food
- Nature > Cyber (cellphone, computer, TV)
- Eat quality > Quantity
- Dine in > Eat Out
- Drink water > Soft drinks/ Wine / Coffee
- Fun Time > Workaholic
- Walk more > Drive
- Social life > Social media
- Power nap can help for sleep deprivation



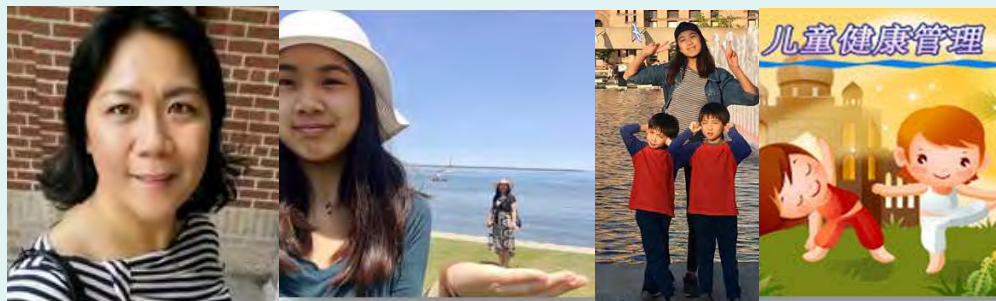
### Reference: More Health info

- USDA's Dietary Guidelines
- Jeffery B. Blumberg. (2018) The Evolving Role of Multivitamin/ Multimineral Supplement Use among Adults in the Age of Personalized Nutrition  
doi: [10.3390/nu10020248](https://doi.org/10.3390/nu10020248)
- Izabela Sadowaska-Bartosz (2014) Effect of Antioxidants Supplementation on Aging and Longevity  
doi: 10.1155/2014/404680
- Terry W. Snell (2012) Antioxidants can extend lifespan of Brachionus manjavacas (Rotifera), but only in a few combinations  
doi: 10.1007/s10522-012-9371-x

# Family Nutrition and Healthy Growth of Children - Case Study By Ms. Emily Ding

Kids'  
Wellness  
at Home

## Wellness Management for Kids



- CPN , Mentor For New Immigrant Professionals
- Passionate in learning traditional Chinese medicine and health nutrition, keen to taste and cook multicultural healthy cuisine, explore DIY gardening, and enthusiastically participate in a number of community volunteer activities with three kids together to promote a positive and healthy lifestyle for self-growth and helping others!

- Child's growth phase: pre-pregnancy/pregnancy/lactation/infant/child/adolescent
- Daily diet: Breakfast/lunch/dinner/snack
- Food: ingredients/sources, hygiene, cooking methods, seasoning, home/supermarket/Restaurant
- Family: Lifestyle/habits, nutritional knowledge
- National Dietary Guidelines: Balanced nutrition, scientific amount
- Status and challenges: Excess nutrition, hidden hunger, sub-health, rejuvenation/severity of chronic diseases
- Family nutrition is essential for children's healthy growth and helps them develop good habits that benefit them for life, so parents play an important role
- Family nutrition begins with scientific knowledge of nutrition, coupled with scientific practice in everyday life
- For sub-health or chronic diseases in children and adolescents, family nutrition interventions are a comprehensive approach that includes education, diet, exercise, stress and sleep management, as well as nutrient supplementation
- Nutrient supplementation begins with the conditioning of the digestive system, normal digestive system, detoxification and absorption of nutrients to normal, in order to promote normal metabolism, normal immune function, eliminate inflammation
- Balance of nutrients, including carbohydrates, lipids, proteins, and micronutrient vitamins and minerals, to avoid excess nutrition or hidden hunger

### Case1 Child Constipation

Boy, two and a half years old, often constipated, eczema, at least 2-3 days a week to use open plug to help defecate, mother is also years of constipation patient

**Nutritional Intervention**

**Diet:** Drink plenty of water, eat more vegetables, increase dietary fiber, promote intestinal peristalsis

**Stress/mood/sleep:** Accompanying parents, helping to regulate mood, regular sleep habits

**Nutrient supplements:**

Probiotics for children - implant useful bacteria to help balance intestinal flora

Children's digestive enzymes - increase protein/fat/sugar digestive enzymes to help digest food

Dietary fiber formula - promotes intestinal peristalsis

**Results :** After one months of conditioning, constipation improved and the number of open plugs

decreased : After 2 months of conditioning, do not need to use open plug dew, can normal defecation

### Case2 Child Autism

Boys, 8 years old, 4 years old diagnosed with autism, emotional instability, go their own way, do not cooperate, do not socialize, academic performance good and bad.

**Nutritional Intervention**

**Diet:** ...

**Nutrient supplementation:**

...

**Results :** After three months of conditioning, mood swings are reduced and focus is increased

### Case3 Teen Eczema

Boy, 16 years old, has severe allergies, allergies when eczema is serious, more appears in the back of the armpit neck, face also has, especially during the exam, sleep late, eczema more serious. Allergies to seafood have been identified and other allergens are uncertain.

**Nutritional Intervention**

**utritional Intervention**

**Diet:** ...

**Nutrient supplementation:**

...

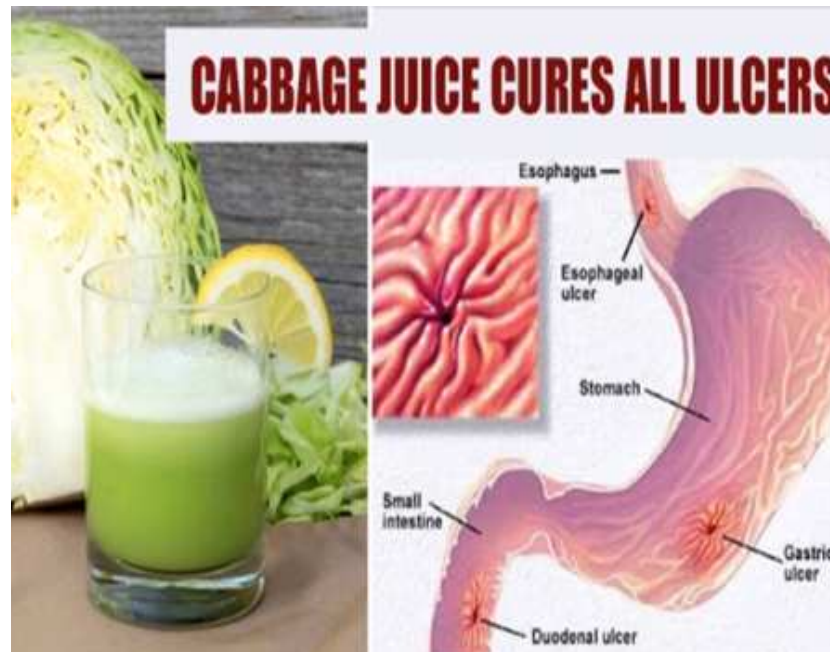
**Results :** After one months , eczema is reduced  
After two months , eczema basically disappears

# Life Cycle Wellness Management

Wellness Management for Weight, Immunity, Seniors, Pregnancy, Maternal & Baby, Growth, Cardiac, Gout, Diabetes, Bone Joint, Cholesterol, Hypertension, Iron-Deficiency Anemia, by Functional Juice with Fruits & Vegetables, Etc.

Functional  
Juice  
for Body

## Manage Wellness by Functional Juice with Fruits & Vegetables



### CABBAGE JUICE FOR ULCER

Organic cabbage if possible, Ginger adds a boost of flavor as well as aiding in digestion

- \* 1 large green cabbage
- \* 2 Granny Smith apples
- \* 1 peeled lemon
- \* 2-inch piece of fresh ginger, peeled

If you have a peptic ulcer, try drinking 1 litre (about a quart) of cabbage juice every day, divided into 4 or 5 portions.



### Functional (Healing ) Juice Formulas with Fruits & Vegetables

1. Carrot+ Apple + Beet
2. Pineapple+Celery+Parsley
3. Apple+Kale+ lemon + Celery + Ginger + Cilantro





A Platform of Linking Science to Daily Life Wellness Needs  
Simplify, Visualize Science to Manage Wellness Easier

## Understand Science behind Industries

- **Implement Wellness Plans Scientifically & Smart Shopping Efficiently**
- Understand Science behind Industries for Food Safety, Quality, Functional Nutrients, and Smart Shopping
- Support Implementation of Wellness Plans
- Help Smart Shopping - from fields, health industries, table to body - Health Needs / Food safety, quality, efficacy nutrition, healthy diet



## Examples

- Natural health product regulations in Canada and how to evaluate the quality of a natural health product, maintain a calm, wise judgment, Understand the Science & Information behind our Foods
- Six Vital Steps Help Understand Food Safety, Quality & Efficacy Wellness Care
- Comparison of Regulations in different countries - Understand Food Safety, Quality & Efficacy Nutrients from Global Vision & Smart Shopping
- How to Filter Health Products - Screen health products Guided by Science
- Case Study – Gain insight into the Products & Smart Shopping

## Know Canada

- Canadian Berries & Efficacy Nutrients - Healthy Food Developments in Canada
- Fiber, Oats & Efficacy Nutrients - Canada's Contribution to Functional Food
- Fiber Science & Canada's Contribution to Global Health
- Dietary Fibers in our Daily Life



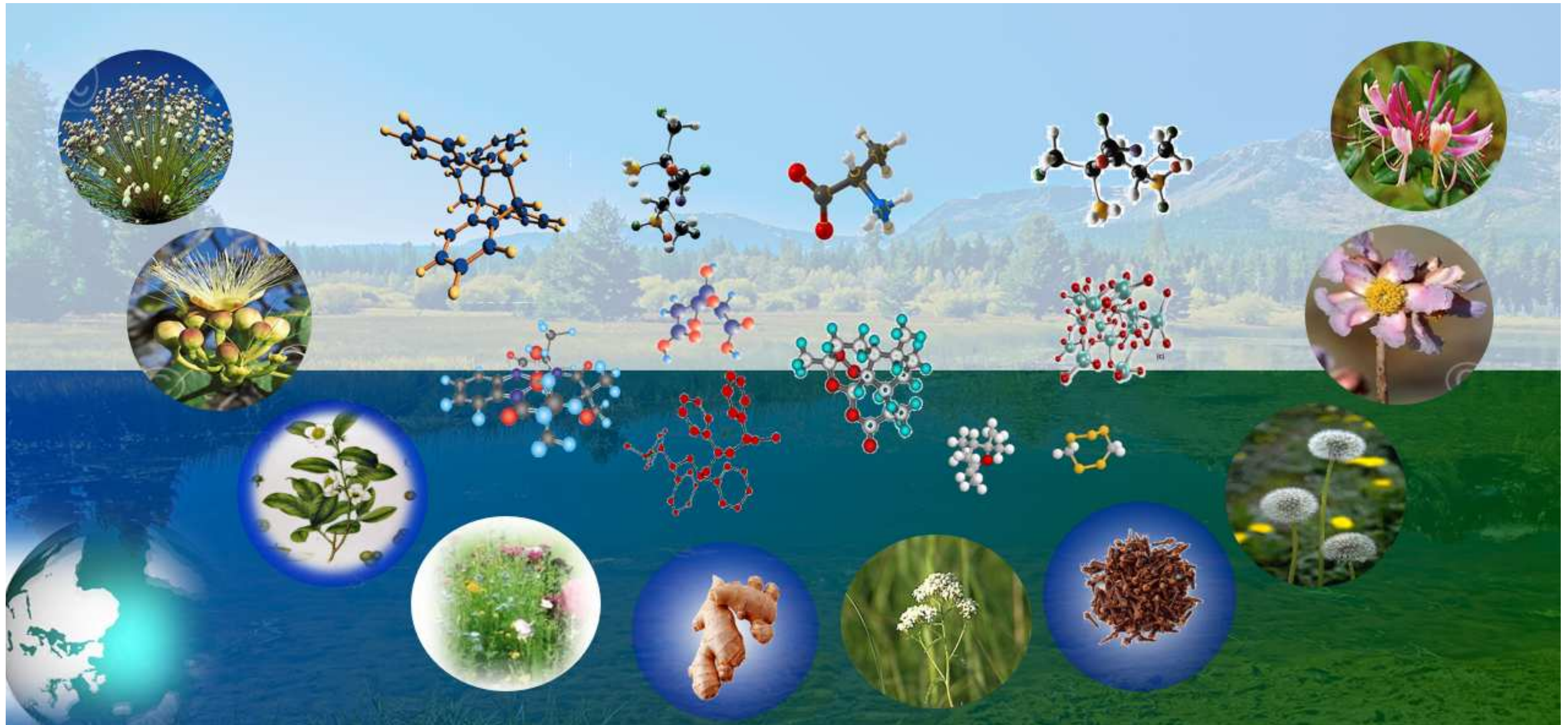
## Science behind Industries

- \* Understand Science General Science behind our Foods/Industries
- \* Smart Shopping - from fields, health industries, table to body for Food Safety, Function & Smart Match - Enhanced Efficacy Management, Implement Wellness Plans Scientifically

Understand  
Food Function  
& Efficacy

Understand Food Function, Efficacy, Nutrients behind Foods

## Health-Promoting Components- Phytochemicals & Bioactives



# Six Vital Steps

- Help Community Understand Science behind Industry for Food Safety, Function and Efficacy.
- Smart Shopping from Fields, Industries, Table to Body according to Individual Wellness Needs.
- Manage Wellness with Enhanced Efficacy Management,
- Implement Plans Easily, Simply, Scientifically and Efficiently.

**Efficacy  
Nutrients  
behind Foods**



# Science & Policies behind Industries

- \* Understand Science General Science behind our Foods/Industries
- \* Smart Shopping - from fields, health industries, table to body for Food Safety, Function & Smart Match - Enhanced Efficacy Management, Implement Wellness Plans Scientifically



## How to Filter Health Products - Food Safety, Quality & Efficacy Nutrients



### Comparison of Regulations in Different Countries

- Help Understand Food Safety, Quality & Efficacy Nutrients from Global Vision because it affect our daily Life.
- The existing regulatory policies in all countries mention that the regulation of raw materials is limited to vitamins and minerals!
- No relevant certification for production formula, function and etc.

#### Use common sense to screen health products

- Is it a regular manufacturer?
- Is it certified?
- Does the product and certification match?
- Whether the ingredients match

#### Use professional knowledge to screen health products

1. The product is suitable for the crowd (gender, age, physical condition, etc.)
2. Main ingredient sources (origin; natural, synthetic; animal, plant)
3. Main component extraction methods (physical, chemical)
4. Main ingredient content
5. Proportion of each component
6. Dosage form (tablets, granules, capsules, soft capsules, soft candy, oral liquid, etc.)
7. Excipients (pigments, sweeteners, flavors, emulsifiers, thickeners...)

	Canada	US	EU	China
Regulatory Authority	Health Canada	USFDA	EFSA	China Food And Drug Administration Ministry Of Health
Health Product Classification	Natural Health Products	Food	Food	Healthy Food
Regulations	NHP Regulation	DSHEA	Directive 2002/46/EC	Health Food Registration And Filing Management Measures
Whether Pre-approval Is Required Before Listing	Yes	No	Products That Are Already Listed In The Approved List Of Raw Materials Do Not Require Pre-approval	For Products - Raw Materials Are Already Listed In The Approved List Of Raw Materials, Only Record Is Required

#### Vitamins, Minerals

- Clearer function
- Gender, age
- Absorption rate and utilization
- Vitamin solubility
- Minerals (organic, inorganic; solubility)

#### Probiotic Products

- Single strain
- Source of strain
- Wild type, mutagenesis, engineering bacteria
- Aerobic, anaerobic, facultative
- Number of live bacteria
- Medium; Bacterial age; Prebiotics

#### Cardiovascular and Cerebrovascular Health Products

- Fish oil, seal oil, krill oil; seaweed oil; egg yolk
- Heavy metal pollution, chemical pollution
- Ethyl ester type, triglyceride type, lecithin type
- Omega-3 content, DHA: EPA ratio, 3:6:9 ratio

#### Brain and memory enhancement products

- Eye care products
- Bone and joint health products
- Sports and fitness products
- Antioxidant products
- .....

## Science & Policies behind Industries

\* *Understand Science General Science behind our Foods/Industries*

\* *Smart Shopping - from fields, health industries, table to body for Food Safety, Function & Smart Match - Enhanced Efficacy Management, Implement Wellness Plans Scientifically*

Smart  
Shopping  
in Daily Life

### Understand the Science & Information behind the Products

## Understand Food Safety, Quality & Efficacy Care

Case Study - A "simple" health product

Gain insight into the game rules, professional analysis, smart choices & healthy eating

1. Product trademark rights, patent rights
2. Understand FDA and product efficacy claims
3. What is NPN#, NPN efficacy recommendation  
- <https://health-products.canada.ca/lnhpd-bdpsnh/index-eng.jsp> =>  
Search field => NPN/DIN-HM : 8008726\*  
=> Click 8008726\* ; [https://health-products.canada.ca/lnhpd-bdpsnh/info.do?licence=8008726\\*](https://health-products.canada.ca/lnhpd-bdpsnh/info.do?licence=8008726*)
4. Use real-time updated scientific information to identify: product quality and activity, product processing technology and bioavailability
5. Product price and sales channels
6. Sino-British, different language media joint operation and product information real, trademark, patent, efficacy, market association, fantasy - source of chaos
7. Understand the marketing model and market share of different countries and different health industries
8. The Internet Message. FDA on Internet Information Source Identification and Health Care Consultation ...  
The Internet also allows for the rapid and widespread distribution of false and misleading information.  
Most of the information on the Internet is valuable; however, you should carefully consider the sources of information found on the Internet and discuss this information with your healthcare provider... - by FDA



# Know World, Know Canada

1) What are the Canadian Contributions of Science/Industry to the World/Human Health?

Page 23 - Discover Insulin, Page 38 - Functional Foods/Canadian Berries, Page 39 - Oats.

2) How could Canadian Health-related Sciences / Industry/Natural Products / Contributions Guide/Benefit Benefit our Wellness Management Efficiently?



## Understand Canadian Berries - Function & Efficacy Nutrients

### How could Canadian Natural Products Benefit our Wellness Management Efficiently?

North American Berries and medicinal herbs are a traditional health-promoting natural product found in Canada

- Blueberries
- Haskap berries
- Gooseberries
- Chokeberries
- Cranberries
- Pine trees
- Medicinal herbs

Canadian Northern Native Haskap Berries

### Major Ingredients

Haskap Berry Extract

Polyphenol Powder

Cranberry Extract

Fruit Pectin Powder

Cranberries grown in Northern Canada

### Major Processing Technologies

- Electrolyzed –Water cleaning process.
- Microwave –Vacuum dehydration process.
- “Green” micronization process.
- O<sub>3</sub> sanitation process
- Aseptic Packaging process.

### Health benefits from ingredients

- Haskap Berries – Are rich in Kuromanins (C3G) which help to reduce of blood sugar content (anti-glycation) .
- Cranberries – Are rich in Proanthocyanidins that have proven anti-inflammatory properties.
- Blackberries and Blueberries – Are rich in Anthocyanins that improve heart and vision health.
- Pine Trees – Contain Polyphenol (EGCG) which is an antioxidant and aids with weight management.
- Fruit Pectin – Helps fight high cholesterol and is a good dietary supplement

**Research for Berries Formula**

- Mixture of Canadian northern native berries and herbs.
- The extract is rich in anthocyanins, Kuromanins (C3G), Proanthocyanidins, Catechins (EGCG), Soluble Pectin, etc.
- It is a good dietary supplement for heart and vision health, anti-glycation and weight management based on many scientific evidences.

## Know World, Know Canada

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Canada's Science  
Contributions  
to Wellness

### Fiber, Canadian Oats & Efficacy Nutrients

#### The Statue Erected in his Honor at Baicheng, China



#### Canada-China Collaboration in Oats and Agri-food – Started from 2004

Plant scientist Dr. Vernon Douglas Burrows; For more than 50 years, Burrows has been working to develop better varieties of oats.

Natural foods -“Naked Oat” based on a new processing technique developed by AAFC

( Agriculture and Agri-Food Canada ) through a 15-year research and breeding project. The raw material is a new hullless and hairless oat variety.

The Program in Food Safety, Nutrition and Regulatory Affairs (PFSNRA) of the University of Toronto that spanned the literature published from 1995 to 2006. In the PFSNRA review, 36 human studies were identified which investigated oat beta-glucan fiber and its cholesterol lowering properties.

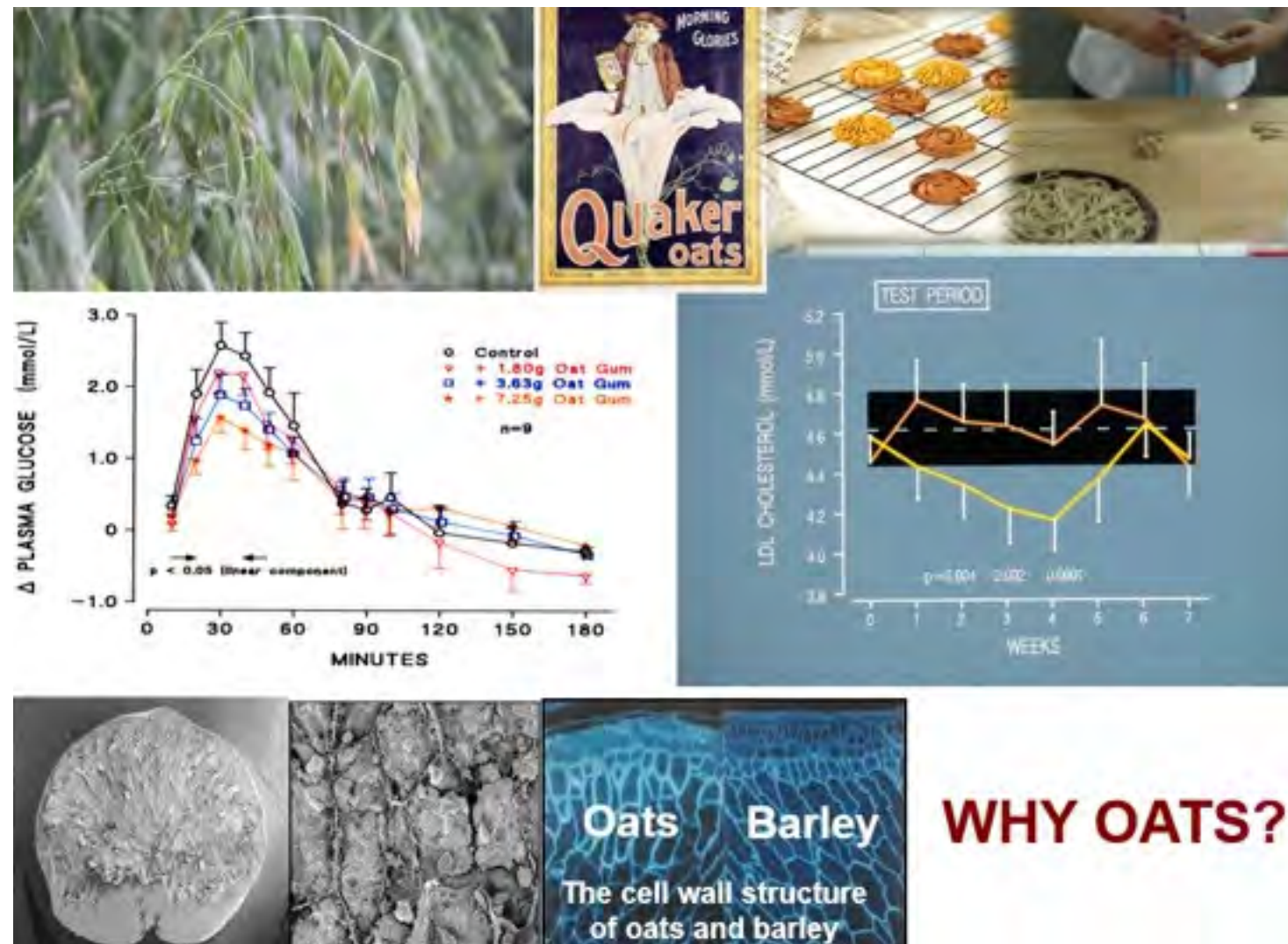
Health Canada has concluded that scientific evidence exists in support of the claim linking the consumption of beta-glucan oat fiber to a reduction of blood cholesterol.

# Know World, Know Canada

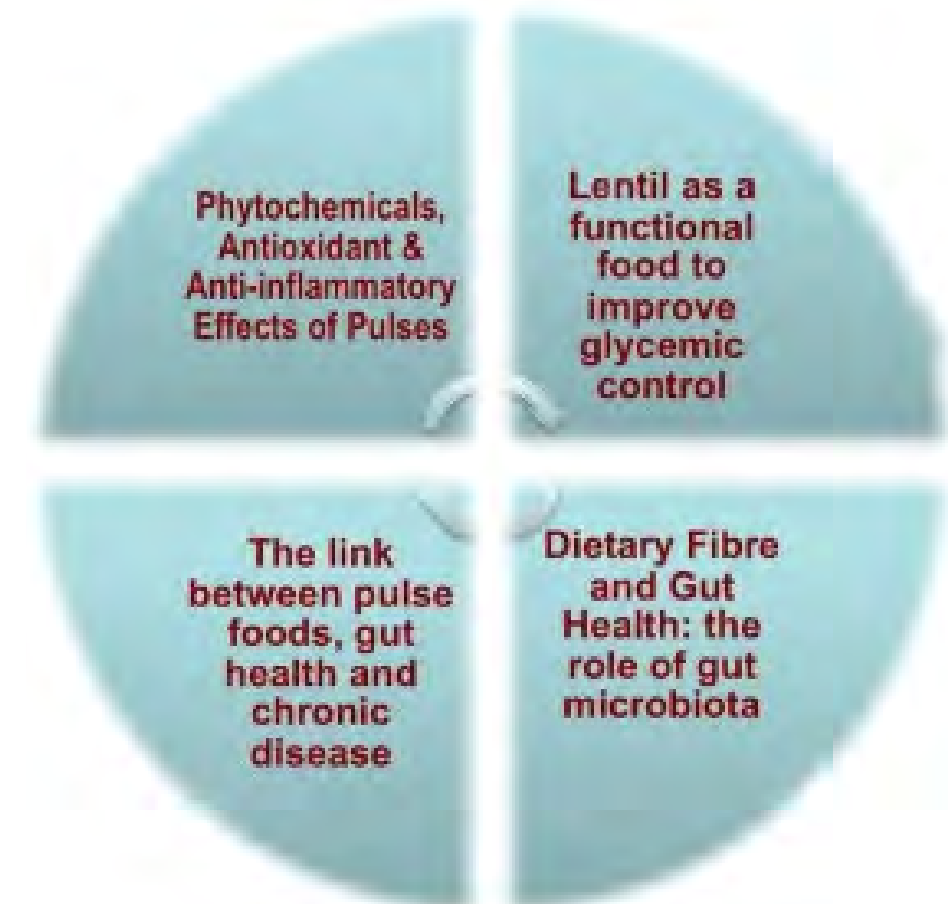
- 1) What are the Canadian Contributions of Science/Industry to the World/Human Health?  
 Page 23 - Discover Insulin, Page 38 - Functional Foods/Canadian Berries, Page 39 - Oats.
- 2) How could Canadian Health-related Sciences / Industry/Natural Products / Contributions Guide/Benefit Benefit our Wellness Management Efficiently?



## Fiber, Canadian Oats & Efficacy Nutrients



## Fiber Science & Canada's Contribution to Global Health



The Program in Food Safety, Nutrition and Regulatory Affairs (PFSNRA) of the University of Toronto that spanned the literature published from 1995 to 2006. In the PFSNRA review, 36 human studies were identified which investigated oat beta-glucan fiber and its cholesterol lowering properties.

Health Canada has concluded that scientific evidence exists in support of the claim linking the consumption of beta-glucan oat fiber to a reduction of blood cholesterol.

## Current Fiber Research in Canada



# How could Canadian Natural Products / Contributions Benefit our Wellness Management Efficiently ?

How Canadian Natural Products Benefit our Wellness

## Dietary Fibres in our Daily Life Wellness Needs

### Benefits of dietary fibers

Reduces risk for developing the following diseases:

- Coronary heart disease, stroke, hypertension, diabetes, obesity, gastrointestinal disorders.
- Lowers blood pressure, improves blood glucose control in diabetes, and weight loss,
- Improve immune function.



### Two categories of fiber... Soluble

**SOLUBLE fibers:** In stomach, it absorbs water and mixes the food into a gel-like material. This slows the emptying of the stomach and the movement of the food mass through the intestine results in slow glucose digestion and absorption, and can result in an extended feeling of fullness.



This type of fiber is found in fruits, oats, barley, legumes.

### What is dietary fiber?

Dietary fiber, is plant cell material that resists digestion and absorption in the human small intestine, with complete or partial fermentation (decomposition by bacteria) in the large intestine.



### Two categories of fiber... Insoluble

**INSOLUBLE fiber** not digest fiber. The viscous fibers take the contents of the intestinal tract during movement, increase fecal mass, and lower the absorption of sugar, reduce sugar response after eating, and reduce lipid absorption. Insoluble fiber is found in greatest amounts in cereals; wheat bran; stalks, peels, and seeds of fruits & vegetables.



### Sources of fiber

Dietary fiber is found only in plant products, including fruits, vegetables, nuts, and grains.

- ❖ Best sources of fiber are in whole-grain products, fruits and vegetables, and beans (dried beans and peas).
- ❖ Refined or processed foods (white bread, pasta, fruit juices, and non-whole-grain cereals) are lower in fiber content.
- ❖ Fiber content will be lowered if you remove the skin from fruits and vegetables.



# News and Videos

## Life Cycle Wellness Management Competition

National Nutrition Day 2019-05-26 ( Awards,Entries Exhibitions )

Learn, Practice, Lead, Share & Inspire - National Nutrition Day /  
Layer-by-Layer Collaboration: Keynote Speech, Awarding, Excellent Entries Exhibitions

Shop Smart  
Manage Wellness  
S.E.S.E

### A. Life Cycle Wellness Management Competition

1. Chinese Media Reports - Life Cycle Nutrition Health Care Speech Contest  
[http://www.yesmyradio.com/news\\_detail.php?menuid=53&id=2216](http://www.yesmyradio.com/news_detail.php?menuid=53&id=2216)
2. Video on YouTube
  - 1) Kids' Speech Contest-Part 1:  
<https://www.youtube.com/watch?v=9GVkfLdkg10>
  - 2) Kids' Speech Contest-Part 2:  
<https://www.youtube.com/watch?v=N1ek0hfzQH0>
  - 3) Kids' Video Contest on YouTube
    - 3a: <https://youtu.be/wemFG8NGM24>
    - 3b: <https://youtu.be/OryFR9oODdw>
    - 3c: <https://youtu.be/OWeSDUvRcFM>

### B. National Nutrition Day 2019-05-26

1. Media reports
  - 1) <https://cmidinc.ca/news-and-events>
  - 2) Chinese media reports - National Nutrition Day 2019-05-26  
[http://yesmyradio.com/news\\_detail.php?menuid=3&id=2264](http://yesmyradio.com/news_detail.php?menuid=3&id=2264)
2. Video on YouTube - National Nutrition Day 2019-05-26
  - 1) Speech - Mr. Thomas Lin - President of ACPN  
<https://www.youtube.com/watch?v=1KOJK08CC7s>
  - 2) Dr. Bruce Holub Speech & Interview on National Nutrition Day 2019-05-26
    - 2A: Speech: <https://youtu.be/W001tUUOKfM>
    - 2B: Dr. Bruce interview:  
<https://www.youtube.com/watch?v=Kufp9GDUOfA>  
<https://www.youtube.com/watch?v=fGg7t1qxWfY>
  - 3) Dr. Heyu Ni - Speech on National Nutrition Day  
<https://www.youtube.com/watch?v=1KOJK08CC7s>
  - 4) Dr. Rafik Ragheb - Speech on National Nutrition Day 2019-05-26  
[https://www.youtube.com/watch?v=eIK4Szx6D\\_4](https://www.youtube.com/watch?v=eIK4Szx6D_4)

### 3. Chinese media reports - Awarding of Writing, Speech, Video Competition

<https://youtu.be/rRvHjns0PX8>

<https://youtu.be/VTwhrWe6TAQ>

### 4. Awarding of Photography Competition

#### 1) Chinese media reports

<http://www.atlantic-arts.org/portal.php?mod=view&aid=197>

#### 2) Video on YouTube - Awarding of Photography Competition

<https://www.youtube.com/watch?v=TkFAkeNCJ14>



ONE WORLD ONE COMMUNITY  
ONE FAMILY



*TOGETHER AS ONE*

See the Future & Create the Future

*The Association of Certified Professional Nutritionists*



**ACPN**