

# From Prescription to Plate: Culinary Translation in Cancer Care

Presented by:

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1

## After the prescription?



## Getting Food to the Plate through Culinary Translation



2

## Disclosures



- Laura Pole, MSN, RN, APRN-Oncology, Chef, Culinary Translator
  - Director of Nourishment Education, Smith Center for Healing and the Arts
  - Senior Clinical Consultant, CancerChoices
- No disclosures



3

## Objectives

- Define culinary medicine and culinary translation
- Describe the practical aspects of cancer culinary translation and how it may be woven into your integrative lifestyle medicine practice.
- Describe principles of health supportive food selection and preparation



4

. . . Through the kitchen door



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5

In Other Words . . .

Nourishment  
Matters!



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6

## Culinary Medicine

- Culinary medicine is an evidence-based, interprofessional field of medicine that combines culinary arts, nutrition science and medical education to prevent and treat diet-related disease. It employs hand-on learning through healthy cooking and is typically taught in a teaching kitchen, either in-person or virtually.”
- “It can be thought of as the previously missing laboratory portion of the historically didactic nutrition curriculum present in most medical schools.”

Source: From presentation by Dr. Nathan Wood, Yale School of Medicine, Director of Culinary Medicine and TNHH Teaching Kitchen



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7

## Oncology Culinary Translation

The practice of assisting cancer patients in taking a diet prescription and converting it into the practical nourishment components of planning, procuring, preparing, eating and assimilating whole foods.

*Laura Pole and Ruth Fehr*



8

## Culinary Translation



- Translating diet prescriptions and the evidence-based science into nourishing meals
- Highlighting food for health benefits, and for deliciousness



9

## Beyond Nutrition: Nourishment



10

## Culinary Translation

- Focus on the practical aspects of nutrition
  - Translates dietary advice and prescription to the plate.
    - Doctor tells you to eat greens – we teach you 5 ways to prepare it deliciously
  - Accommodates people’s lifestyle, culture and budget
- Balance is beyond nutrients
  - Variety, Color, Flavor, texture
- Meeting people where they are
  - No sudden dietary revolution
  - Helping rehabilitate and enhance taste buds
- Clearing up misconceptions:
  - Healthy and delicious can be a daily partnership
  - Healthy eating is accessible



11

## Thought for Food

- “There are no good or bad foods—food just gives information.”  
(Marc David: Nourishing Wisdom)
- “You can’t eat dogma.” (Unknown source)
- “Eat food. Not too much. Mostly plants.” (Michael Pollan)
- “Eat Your Vegetables” (Our mothers and grandmothers)



12

## Also, think about the kitchen pharmacy



Using the fork (and spoon) to  
become an “epigenetic engineer”

(Jeanne Wallace—Nutritional Solutions)



13

## Culinary Spices Inhibit NFkB

<b>Anise</b>	<b>Cumin</b>	<b>Mint</b>
<b>Basil</b>	<b>Fennel</b>	<b>Mustard seed</b>
<b>Black pepper</b>	<b>Fenugreek</b>	<b>Nutmeg</b>
<b>Caraway</b>	<b>Flaxseed</b>	<b>Oregano</b>
<b>Cardamom</b>	<b>Garlic</b>	<b>Parsley</b>
<b>Chili pepper</b>	<b>Ginger</b>	<b>Rosemary</b>
<b>Cinnamon</b>	<b>Holy basil</b>	<b>Saffron</b>
<b>Clove</b>	<b>Lemongrass</b>	<b>Tamarind</b>
<b>Coriander</b>	<b>Licorice</b>	<b>Turmeric</b>

Source: Aggarwal, V. and Shishua, N. Suppression of the nuclear factor-kappaB activation pathway by spice derived phytochemicals: reasoning for seasoning. *Am NF Acad Sci, Dec. 2004; 1030: 434-41*



14

Yes, but if food is medicine,  
won't it be hard to "take" or  
won't it taste bad?

Nourishment also means the food is  
tasty and you're able to weave it into  
your budget and your life.



15

If your patient has decided to  
change the course.



16



## Some guiding principles:

- “Dietary plans have to be affordable, employ readily available foods and fit people’s lifestyles to be successful.”
  - » Barbara Rolls, Pennsylvania State University
- **Eight Principles of Food Selection**
  - » From Annemarie Colbin’s [Food as Medicine](#)



17

## Principles of Food Selection



**How to Choose Your Food**



18

## Eight Principles of Food Selection

- Whole
- Quality  
fresh/frozen/fermented/canned/  
dehydrated
- Natural
- Seasonal
- Local
- In harmony with tradition
- Balanced
- Delicious



19

## Whole Food

Food that nature provides with all its  
edible parts



20



21



22



23

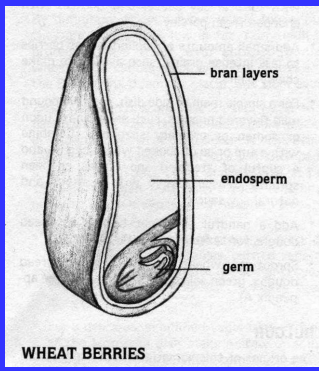


24



25

### Anatomy of a Whole Grain



26

## Where are the nutrients?

- Bran and germ---contain 80% of the fiber and many other nutrients and nonnutrients
  - Phytochemicals in the fiber matrix
  - Polyunsaturated FA's in germ (these oxidize and cause rancidity with longer storage)
  - Few calories
- Endosperm—mostly starch, energy rich; little fiber; nutrient poor



27

## What's lost or changed by refining foods?

### *When Whole Wheat Flour Becomes White Flour*

MINERAL	LOSS (%)	OTHER NUTRIENTS	LOSS (%)
Calcium	60	Strontium	95
Chromium	40	Zinc	78
Cobalt	89	Vitamins B <sub>1</sub> , B <sub>2</sub> , & B <sub>3</sub>	72-81
Copper	68	Vitamin B <sub>6</sub>	50
Iron	76	Pantothenic Acid	50
Magnesium	85	Folacin	67
Manganese	86	Vitamin E	86
Molybdenum	48	Linoleic Acid	95
Phosphorous	71	Alpha-linolenic	95
Potassium	77	Protein	33
Selenium	16	Fiber	95



28

## The take home

All the parts of the grain act synergistically in the life of the plant—when the whole grain is eaten, this synergism and harmony is passed on to us as nourishment



29

## Examples of Whole Grains

- Quinoa
- Millet
- Brown Rice
- Oats
- Lightly pearly barley
- Bulghar wheat



Millet This Photo by Unknown Author is licensed under CC BY-NC-ND. Quinoa This Photo by Unknown Author is licensed under CC BY-NC-ND. Oats This Photo by Unknown Author is licensed under CC BY. Bulghar This Photo by Unknown Author is licensed under CC BY-NC-ND.

30

## Culinary Wonder!

- Adding vinegar (or other acid) to a carbohydrate-containing food, will decrease the glycemic index.
- “Sprouting” a whole grain by soaking it overnight with 1 Tbsp. of yogurt, kefir, vinegar, lemon juice, will make it more easily digestible, increase mineral absorption, and make it cook faster!



31

### Some Whole Foods that Lower Glycemic Load and/or Inflammation

Most vegetables and fruits:  
Especially brassica family  
(broccoli, collards, cabbage,  
etc.); allium family (garlic,  
onions); avocados;  
blueberries

Nuts and seeds, including nut  
butters and nut flours without  
sugar added

Beans: Whole soy beans  
(tempeh, edamame); lentils,  
chickpeas, kidney beans



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32



## Quality Fresh, Frozen, Fermented, Dehydrated or Canned

When possible, choose fresh;  
dehydrating and naturally  
pickling/fermenting foods also leaves  
more nutrients intact. However,  
frozen and canned OK, especially  
when quality fresh not available.



33



34

## Natural

- Food is raised or grown as naturally as possible without pesticides, chemicals, hormones, etc.
- Eating the food as close to the way it looked when it came out of the ground or off the tree/bush (i.e. baked potato vs. potato chip)



35



36



37



38

## When Should I Get Organic?

- Eat a varied diet
- Rinse all produce
- Eat organic when possible



**EWG'S 2024 DIRTY DOZEN™**

1. Strawberries	7. Nectarines
2. Spinach	8. Apples
3. Kale, Collard & Mustard Greens	9. Bell and hot peppers
4. Grapes	10. Cherries
5. Peaches	11. Blueberries
6. Pears	13. Green beans



**EWG'S 2024 CLEAN FIFTEEN™**

1. Sweet corn	9. Kiwi
2. Avocados	10. Cabbage
3. Pineapple	11. Watermelon
4. Onions	12. Mushrooms
5. Papaya	13. Mango
6. Sweet peas	14. Sweet potatoes
7. Asparagus	15. Carrots
8. Honeydew melon	

Source: [ewg@ewg.org](mailto:ewg@ewg.org)



39

## If it's processed, learn to:

# Read the Label!



40



41



42



43



44

# Don't Be Fooled!



45



46

“Anyone who eats a fresh, ripe  
strawberry does not say anything  
caustic or cruel for 15 minutes  
thereafter.”

Garrison Keillor



47

## Local

- Farmer's Markets and Stands
- Natural foods stores
- Some large chain grocery stores carry locally grown/raised foods
- Grow your own—a simple garden or in pots

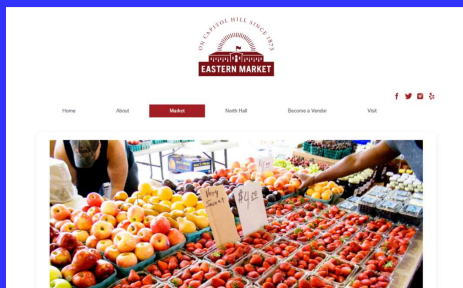


Picture Source: <http://www.gestarz.org/blog/2009/04/peachy-keen.html>

48



## Some Farmer's Markets Honors the SNAP program and Sr. Citizen Discounts



Picture Source: [http://www.peachstand.com/springsfarm\\_peachfacts.asp](http://www.peachstand.com/springsfarm_peachfacts.asp)

49

## Seasonal

- Eating the foods that are in season helps you adapt to your environment
- These foods “take better care of you” when eaten in season



50



51



52



53

## In Harmony with Tradition

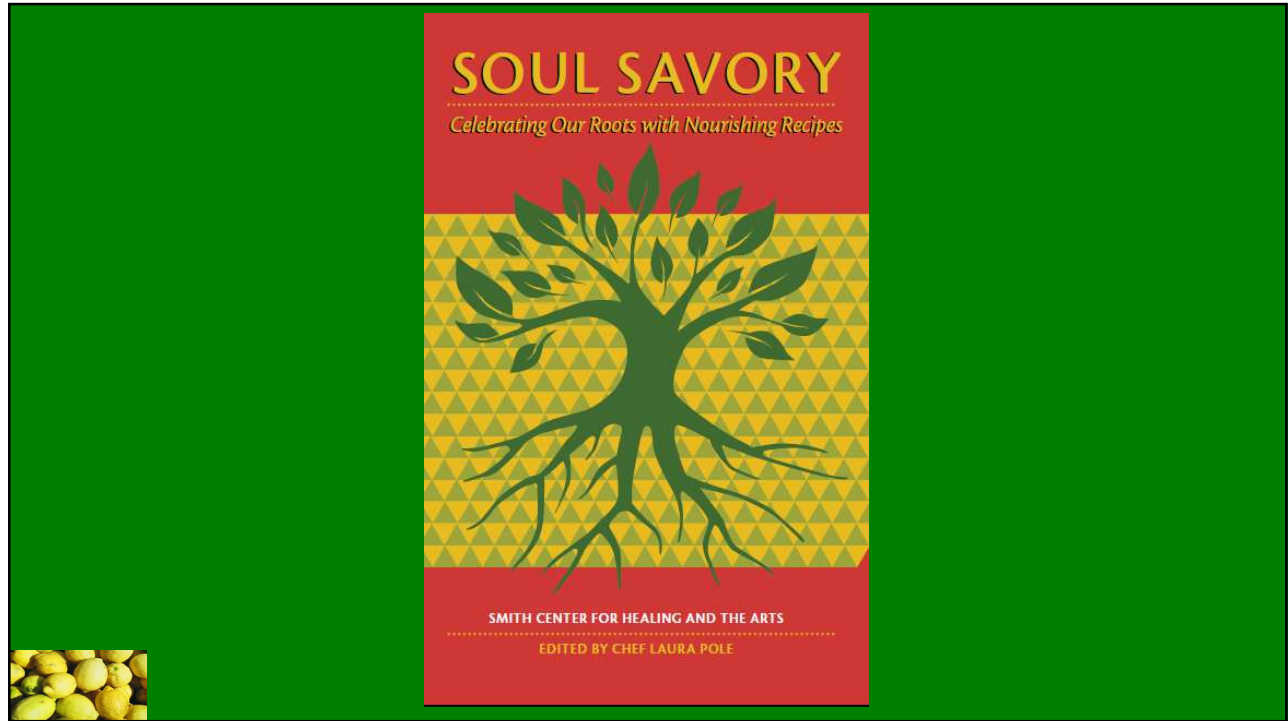
Look back to foods traditionally eaten  
by your ancestors to get some idea on  
where to start with whole grains and  
beans.

Consider food rituals and emotional  
attachments



54

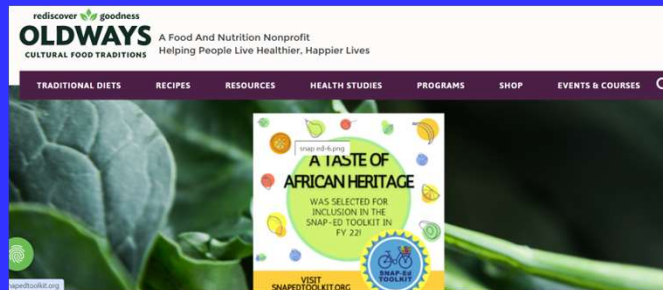




57

## Preparing Traditional Diets: Oldways.org

- Mediterranean Diet
- African Heritage Diet
- Latin American Diet
- Asian Heritage Diet
- Vegetarian and Vegan Diet



58

## Bringing the tastes of the Camino home



59

## Balanced

A dynamic process.  
Your body may require different  
foods at different times.  
Be willing to accommodate and give  
your body what it needs.



60

## Healthy Balance

- Balance for nourishment: Variety of foods that have complex carbohydrates, protein, and healthy fat.
- A Rainbow of Day: choose fruits and veggies in a rainbow of colors---that's where the phytonutrients are!
- Balance for textures, tastes and cooking methods
- Balance for quantity



61

### Stage 3: The New American Plate



This meal is a great example of the New American Plate. To achieve this meal you'll be opting for an ever smaller portion of meat. The modest 3-ounce serving of meat (fish, poultry, or red meat) pictured here fits AICR guidelines for [cancer prevention](#). This plate also features a wider variety of foods, resulting in a diverse assortment of cancer-fighting nutrients. Rather than just a single portion, opt to include a wider range of vegetable types in your meals. Two kinds of vegetables increase the proportion of plant-based foods, and a healthy serving of a tasty whole grain (brown rice, barley, kasha, bulgur, millet, and quinoa) completes the meal.



<https://www.aicr.org/cancer-prevention/healthy-eating/new-american-plate/>

62



63

## A Balanced View

- “Americans love to hear good news about their bad habits!”  
Dr. John McDougall
- Be aware of “overdoing it” when you hear good news about the value of a food---i.e. “Dark Chocolate is good for me---now I can go back to eating a whole chocolate bar everyday”
- No one particular food is either a demon or a panacea.
- Everything in moderation---including moderation

64



## *Tastes Great!*

Healthy food  
must be delicious  
to be truly  
healthy!



65

## Ready for Change?

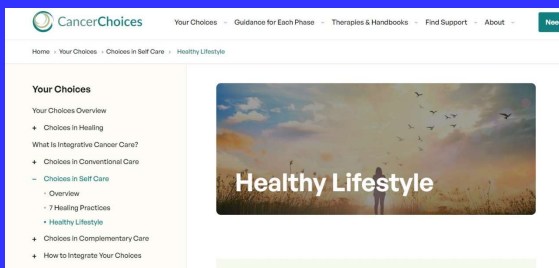


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66

## You'll find a few ideas here:



### Creating lifestyle choices that stick

Making changes that last can be a challenge, but it's not beyond reach.

#### Guidance from an expert

Dr. Mark Altabe, a behavior psychologist who guides people in lifestyle changes offers the following advice for creating healthy habits that stick:

Commit first to your health, rather than committing to one behavior or habit. This opens the door to practicing a variety of health-promoting behaviors that will up and lessen the risk of getting that one medical condition. The process is not about knowledge or feeling, but of opening up to your health.

And as you begin to experiment with the culture of change:

- 1. Personalize the change**  
It has to be meaningful and meaningful to you.
- 2. Create a sense of urgency**  
This establishes the importance factor. Fear may be part of the motivation, but shouldn't be your only motivation.
- 3. Build confidence (self-efficacy)**  
This is to determine you are confident in the local difficulties. For example, "I will be able to keep from smoking when out with friends who are smoking." Build confidence that you can make goals and then be able to achieve them.
  - Breaker your confidence of success.
  - Set up goals that you can easily achieve. Determine what you're most confident you can achieve and start there.
  - Expand your target and when you're 100% confident that someone get yourself on the back or trust yourself on a healthy program.
  - Reward yourself of goals you have achieved on the go.
- 4. Social support**  
This is a good in helping you sustain change. Social support includes care. For instance, tell a friend you're working on making this change and ask for their help. Or, though possibly your environment not that a person who will be supportive of you. The situation of going support to others help in building change in ourselves. Along to build that support network, but will tend to have similar values and it may be easier for people we know to support us. Be realistic, though, that some people may know they will be supportive but may not be so if they feel threatened by your making changes that will support the situation. It's likely not a good idea to trust that they will help in your change support team.
- 5. Maintain your autonomy**

<https://cancerchoices.org/your-choices/choices-in-self-care/healthy-lifestyle/>



67

## Need Help and Support Putting Nourishment on Your Plate?

Check out the Anticancer  
Lifestyle Program at:

[www.anticancerlifestyle.org](http://www.anticancerlifestyle.org)

The screenshot shows the Anticancer Lifestyle Program website. The header includes the logo, search bar, and navigation links: HOME, ABOUT, ONLINE COURSE MODULES, TOOLKIT, EVENTS, TESTIMONIALS, and BDC. A 'START LEARNING NOW' button is also present. The main content area is titled 'ONLINE COURSE MODULES' and 'Diet'. Below this, there is a section titled 'Enjoy Your Food! Improve Your Diet...Reduce Your Risk' with a quote from Hippocrates: "Let food be thy medicine and let medicine be thy food." The text explains that research and experience over the millennia has proven that the father of modern medicine was correct. Your diet makes a huge difference in your health and can reduce your risk of cancer growth and recurrence. Eating well reduces inflammation, strengthens your immune system, and makes you feel better. It also mentions that using expert videos, animation, text, and interactives, the Diet Module of the Anticancer Lifestyle Program will give you tools you can use to make informed (and delicious!) food choices. A list of topics covered by the Diet Module is provided: Going organic, Changing your oil, Eating a plant-based diet, Beneficial fats, oils, and teas, The benefits of cutting down on sugar and red meat, and Much more. It also states that each course module has its own Toolkit to help you continue to develop your Anticancer Lifestyle. At the completion of this module, you will have a clear, achievable action plan to make the changes you'd like to see. A 'REGISTER NOW' button is visible, along with the text 'Already Registered? Login'.

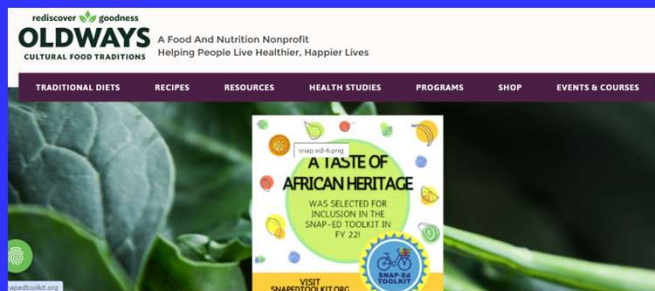
FEEL EMPOWERED



68

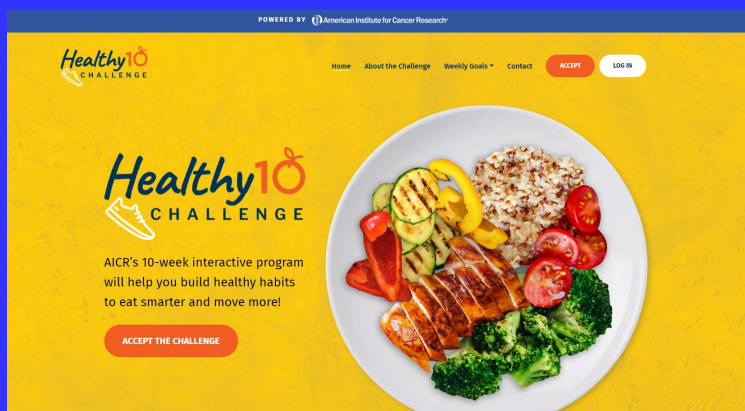
## Preparing Traditional Diets: Oldways.org

- Mediterranean Diet
- African Heritage Diet
- Latin American Diet
- Asian Heritage Diet
- Vegetarian and Vegan Diet



69

## Need Help and Support Putting Nourishment on Your Plate?



Go to the American Institute for Cancer Research at:  
<https://healthy10challenge.org/>

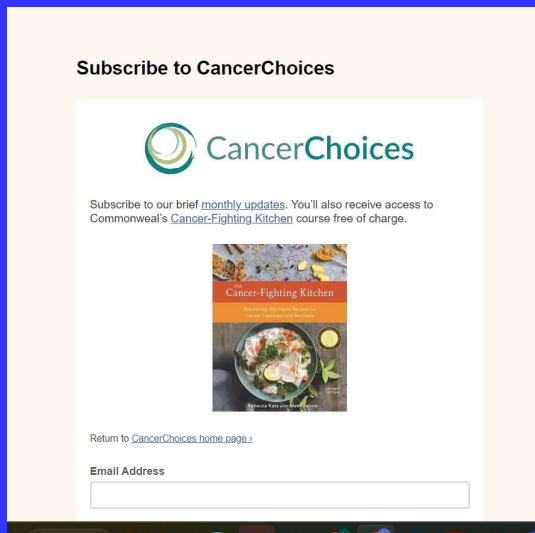


70

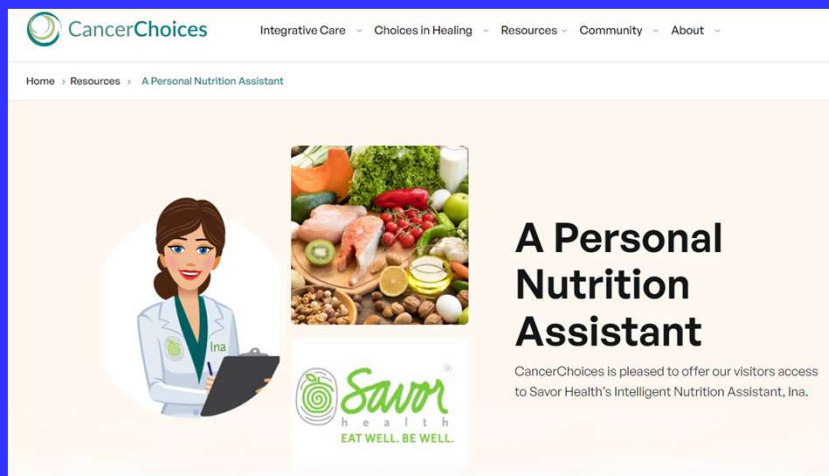
## Need Help and Support Putting Nourishment on Your Plate?

Sign up for  
CancerChoices'  
newsletter and get free  
access to Rebecca  
Katz's online Cancer  
Fighting Kitchen  
Course:

<https://www.tfaforms.com/5019338>



71



<https://cancerchoices.org/resources/a-personal-nutrition-assistant/>



72

## Resources on Culinary Medicine

- Harvard Course on Culinary Health Education Fundamentals (CHEF) Coaching—The Basics: <https://cmecatalog.hms.harvard.edu/culinary-health-education-fundamentals-chef-coaching-basics>
- Georgetown Culinary Medicine Elective: <https://smhs.gwu.edu/academics/md-program/curriculum/clinical-public-health/culinary-medicine-elective>
- Georgetown's Seva Teaching Kitchen: <https://blogs.gwu.edu/smhs-culinarymedicine/570-2/>
- Tulane's Goldring Center for Culinary Medicine: <https://culinarymedicine.org/venues/goldring-center-for-culinary-medicine/?srsId=AfmBOoq1jHx2ODvEyfREcijRLbBNUprsnO8E9OsRwY9YNGRGIEzAuA9I>
- Yale's School of Culinary Medicine: <https://medicine.yale.edu/internal-medicine/genmed/education/culinary-medicine/>



73



74

It's not just about the food. What about  
the "eating experience"?



75

Nourishment through  
Eating Awareness



76

## Eating Awareness

- Eat in a harmonious and happy environment. Best if TV or radio not on. Minimize disturbances while eating.
- Try not to eat when you are emotionally upset.
- Favor eating while sitting down.
- Check your hunger level before eating. Eat to 3/4 full (1 cupped handful).
- Wait to eat until after the previous meal has been digested.



77

## Eating Awareness

- Drink small amounts of warm liquids when eating; best not to drink cold liquids
- Take several minutes after the meal to rest.
- Take your main meal at midday (digestive fire is at its peak in the midday)
- Aim to eat your last meal by 7 PM and then break your fast the next morning (breakfast)
- Eat what you enjoy



78

## A practice before meals . . .

- Sit down at the table
- If you have a chime or a bell or a singing bowl, ring it.
- Breathe 4 slow deep breaths
- Ring
- Eat



This practice of slow deep breathing prepares your body to go into rest and digest mode



79

## The Prepping



80



# The Eating



81

# The Yummmmmmmmmmm!



82

## The Ahhhhhhhhhhhhhhhhhhh!



83

“One cannot think well, love  
well, sleep well, if one has not  
eaten well.”

Virginia Woolf



84

**Contact Information**

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