

“The Cultural Food in Southeast Asia”



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Asia Continent



There is enormous cultural diversity in Asia.

The continent is divided into two broad cultural realms:

that which is predominantly Asian in culture ~

(East Asia, Southeast Asia, and South Asia)

and that which is not (West Asia, Central Asia, and Russian Asia).



Asia Divisions:

West Asia, the countries of the Arabian peninsula more commonly known as Middle East and including Turkey, Cyprus, Lebanon, Syria and Iraq;

Central Asia, countries east of the Caspian Sea and includes, Iran, Afghanistan, and the countries of the former USSR (Turkmenistan, Kazakhstan, Uzbekistan, Kyrgyzstan);

South Asia includes India, Nepal, Sri Lanka, Bangladesh and the Maldives.

East Asia is composed of China, Mongolia, Korea and Japan, and;

Southeast Asia includes Myanmar (Burma), Thailand, Cambodia, Laos, Vietnam, Malaysia, Singapore, Indonesia, East Timor, Brunei and the Philippines.

ASEAN ~ regional organization comprising 10 Southeast Asian states which promotes intergovernmental cooperation and facilitates economic integration among its members.





Food Criteria

- safe
- provide nutrients
- provide pleasurable experience during consumption
- satisfy hunger
- affordable

Food... Glorious Food!



A food item that is beyond one's ability to acquire, whether by purchase or by personally gathering it, can certainly not be considered as one's food, no matter how desirable.

Food Culture



- practices, attitudes, and beliefs as well as the networks and institutions surrounding the production, distribution, and consumption of food
- encompasses the concepts of foodways, cuisine, and food system and includes the fundamental understandings a group has about food, historical and current conditions shaping that group's relationship to food, and the ways in which the group uses food to express identity, community, values, status, power, artistry and creativity

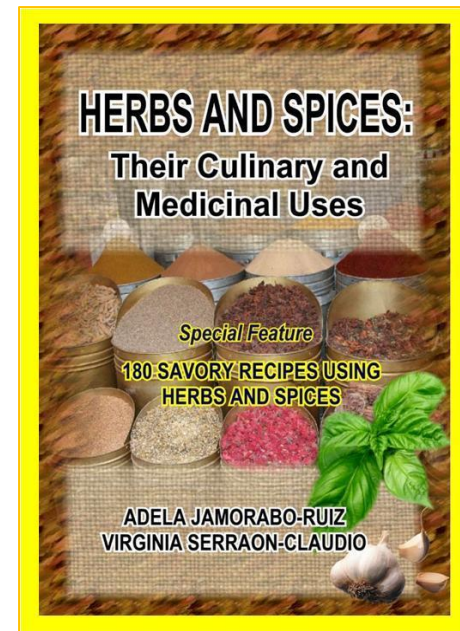
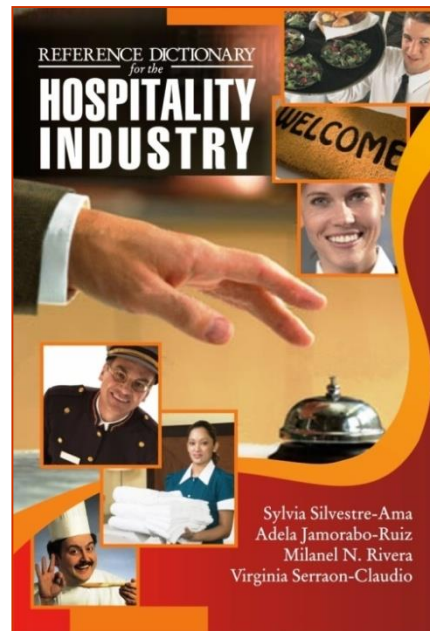
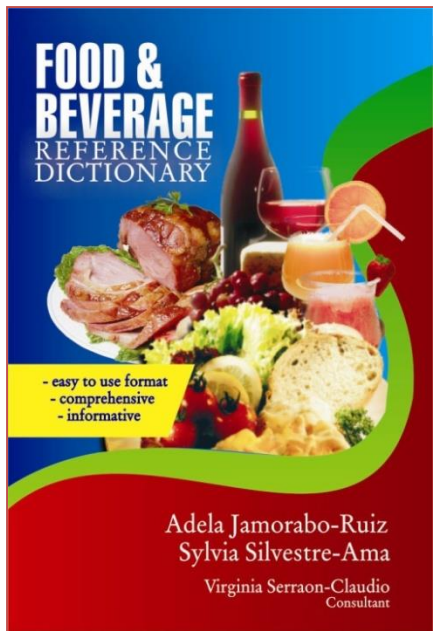
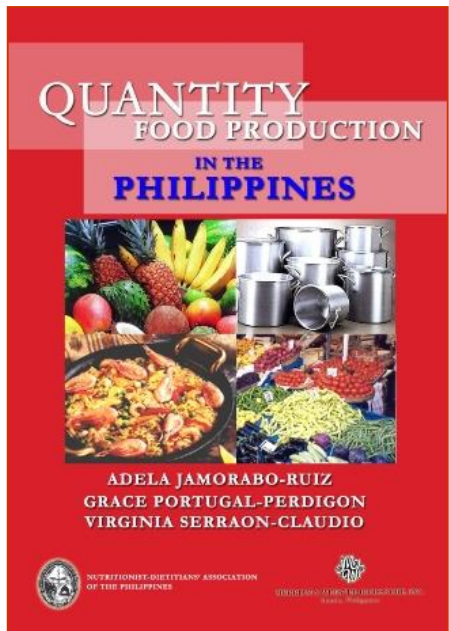
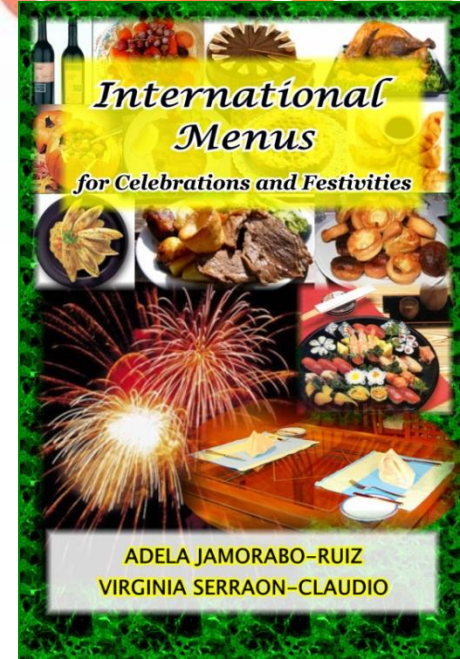
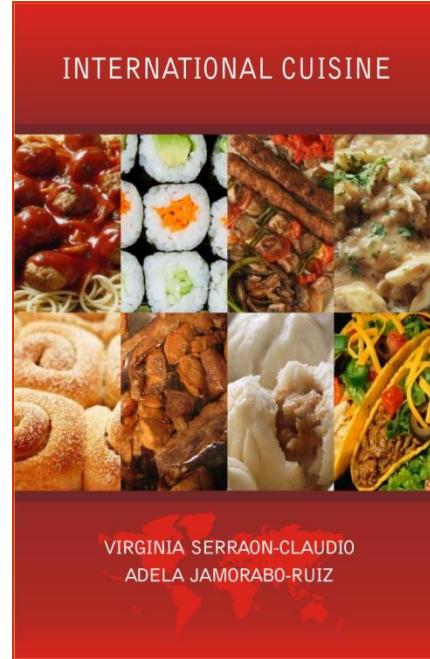
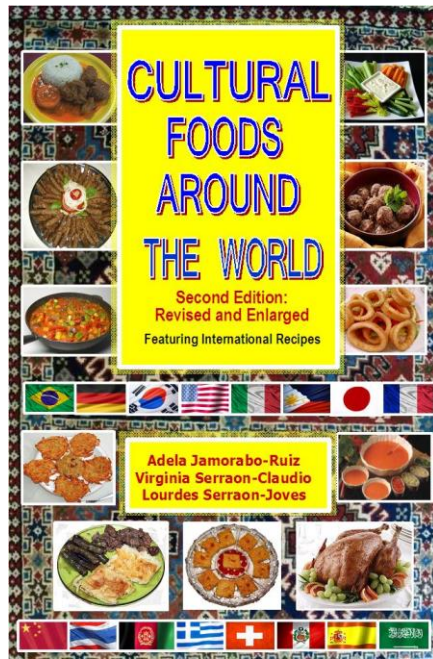
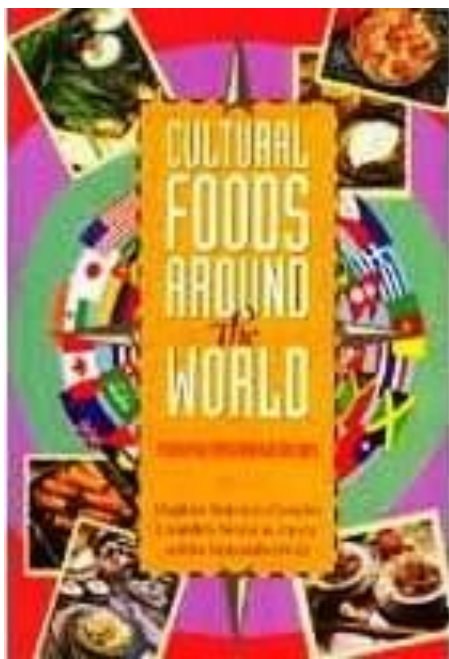
Food Culture



- Ways in which humans use food, including everything from how it is selected, obtained, and distributed to who prepares it, serves it and eats it.

(Kittler & Sucher, 2004)

- Interchangeably used term with **food habits** and **foodways**
- **Cuisine** denotes a style of cooking with distinctive foods, preparation methods and techniques of eating



Objectives



- Compare and contrast the foodways in Asian dietary cultures
- Describe the common characteristics of Southeast Asian food culture/cuisine.
- Discuss the health impact of SEA traditional diets.

Asian Dietary Cultures



3 main categories of Asian dietary cultures



- The **southwest** tradition ~ cuisines from India, Pakistan, Sri Lanka, and Burma had its roots in Persian-Arabian civilization.
- The eating of *nan* (or flat bread) became widespread, along with mutton, kebabs (derived from Turkish cooking), and the use of hot peppers, black pepper, cloves, and other strong spices, along with *ghee* (a butter oil).
- Curry also became a staple in this dietary culture.
- Through the teachings of Hinduism, cows were used only for their milk and not for meat.
- In addition to rice, *chapati* made from wheat or barley also became a staple part of the diet, and so with beans which play an important role in meals.

3 main categories of Asian dietary cultures



- **The northeast tradition ~ China, Korea, and Japan**
- Developed to emphasize using fats, oils, and sauces in cooking; emphasize using soy sauce
- The foods, spices, and seasonings go beyond being mere foodstuffs as they are also used as medicines to promote a long and healthy life.
- In addition, food became associated with many religious practices, as many northeast Asian cultures frequently used food as symbolic offerings to worship their ancestors

3 main categories of Asian dietary cultures



- The **southeast** style includes Thailand, Laos, Cambodia, Vietnam, Indonesia, Malaysia, Singapore, and Brunei.
- Traditional emphasis on aromatic and lightly-prepared foods, using a delicate balance of quick stir-frying, steaming, and/or boiling, supplemented with discrete spices and seasonings, including citrus juices and herbs such as basil, cilantro, and mint.
- While northeastern cuisines emphasize using soy sauce in nearly everything, many cultures in the southeast substitute fish sauce, along with galangal, lemon grass, and tamarind for additional flavor.



Common Religious Food Practices



	Seventh-Day Adventist	Buddhist	Eastern Orthodox	Hindu	Jewish	Mormon	Muslim	Roman Catholic
Beef	A	A		X				
Pork	X	A		A	X		X	
All Meat	A	A	R	A	R		R	R
Eggs/Dairy	O	O	R	O	R			
Fish	A	A	R	R	R			
Shellfish	X	A	O	R	X			
Alcohol	X			A		X	X	
Coffee/Tea	X					X	A	
Meat and Dairy at same meal					X			
Leavened Foods					R			
Ritual slaughter of meats					+		+	
Moderation	+	+					+	
Fasting*		+	+	+	+	+	+	+

X, prohibited or strongly discourage; A, avoided by the most devout; R, some restrictions regarding types of foods or when a food may be eaten; O, permitted, but may be avoided at some observances; +, practiced.

*Fasting varies from partial (abstention from certain foods or meals) to complete (no food or drink).

Foodways and typical foods eaten in Southeast Asian countries



Noodles, soup and vegetables with some meat or sea foods are typical in Southeast Asian cuisines.

Dips and sauces are common food accompaniments



Thai basil and coconut



fish sauce



lime, kaffir lime leaves and lemongrass



chilies: dried, paste and fresh

Common ingredients in Southeast Asian Cuisine

Food Culture of SEA Countries



Brunei. The life of the average Bruneian revolves around his religion, Islam, with certain things being forbidden (haram); certain things tolerated but not encouraged (makruh) and certain things which fall under the embrace of Islam (halal). Pork, the consumption of alcohol and eating meat not slaughtered under Islamic guidance are haram. Smoking and eating shellfish are considered makruh.

Cambodia. Because of its heritage, Cambodian cuisine is uniquely different from neighboring Thailand and Vietnam, to which it has been most often compared. It derives its flavor from spice and aromatic herbs with little use of fat and meats. Fresh vegetables, ripe and unripe fruits and fish are used in abundance. Rice is staple.



Prahok (pungent fermented fish paste) fried in banana leaves with fresh green vegetables and steamed rice.

Food Culture of SEA Countries



Laos. The indigenous cuisine of Laos places much emphasis on fish sauce, chili and sticky rice. However, Lao cuisine has also absorbed some French and substantial Vietnamese elements, while the greater poverty of the rural areas of Laos has led to a more restricted diet of mostly raw foods.

Most Laotians (or Lao) eat rice three times a day. The most common type is 'sticky rice,' which can be rolled into a ball with the fingers and dipped into a sauce.

Occasionally, people eat noodles rather than rice. **Padek** or fermented fish paste is an ingredient in many Laotian dishes. Hot chilies are also added to foods. The amount of chili used varies with the different Laotian ethnic groups. Other common seasonings are lime juice, lemon grass and coriander leaves. A typical Laotian meal consists of rice, fish, vegetables and hot peppers. A common Lao dish is called **laap**. It is a mixture of finely chopped meat or fish and lime juice, garlic, green onions, mint and chilies.



Laap

Food Culture of SEA Countries



Indonesia. Its culinary ties are closest to SEA countries strongly influenced by India. Curries – highly spiced sauces often diluted with coconut milk and served with bite-size bits of meat, fish and vegetables enliven the blandness of rice that is a staple in meals. Indonesian recipes are mixtures of different food cultures. However, Indonesian signature dishes also have their own distinctive flavors like *sambals*, *satays*, curries, coconut-milk based dishes, rice cakes, and peanut sauces. Soy-based dishes such as variations of tofu (*tahu*) and *tempeh* are also very popular. Tempeh is an adaptation of tofu to the tropical climates of Indonesia.

satay



Gado-gado with peanut sauce



tempeh

Food Culture of SEA Countries

Malaysia. The Malaysian Muslims, Chinese Buddhists, Indian Hindus and tribal peoples work, play and dine together. In the country's cultural melting pot, each of these ethnic groups has left their way of life and culinary traditions. Borrowing and adapting from each other's cooking techniques and ingredients, they developed a rich and spicy Malaysian kitchen. One of the most celebrated Malaysian dishes worldwide is **Beef Rendang**; a must-have for celebrations and special occasions. Another famous Malay classic is the 'meat-on-a-stick' *Satay*. Chicken, beef or mutton **satays** are cooked over hot charcoals and served with fresh cucumber, onion and a spicy peanut dipping sauce. The spicy peanut dipping sauce is what makes *satay* special, and great for dipping **ketupat**, a compressed Malay rice cake.



Rendang;



ketupat

Malaysian Chinese Food



Hainanese Chicken



Char Kway Teow



Steamed Pomfret



Clay Pot Rice

Food Culture of Some SEA Countries



Myanmar. Burmese cuisine has unique preparation techniques and distinct flavors. Dishes vary by regions that have different versions of “standard” dishes. The one constant is **htamin** (rice), which is always eaten at lunch and dinner. Rice is usually served with a curry dish (**hin**) or fish, chicken, or shrimp, along with fried/boiled vegetables and soup. Glutinous rice called **kauk hnyin** is also very popular including the black variety known as **nga cheik** especially as a breakfast dish. Various types of noodles are commonly used in salads and soups or fried. Use of seafood is more prevalent along coastal cities while meat and poultry are more commonly used in landlocked cities.



Pickled daikon or mooli

steamed rice as the main dish and accompanying dishes called **hin**, including a curried freshwater fish or dried/salted fish dish, a curried meat or poultry dish instead, a light soup called **hin gyo** & fresh or boiled vegetables to go with a salty dish

Food Culture of SEA Countries



Philippines. Traditional Filipino cuisine is the result of various cultural influences – from the Indonesians and the Malays who were the first foreign settlers on Philippine shores; from the Spaniards who colonized the Philippines for >3 centuries; from the Americans and the Japanese who took over from the Spaniards; from the Chinese, the Arabs and the Indians with whom the Filipinos had been trading long before Magellan landed on these islands.



Food Culture of SEA Countries

Singapore. The variety of religions found in Singapore is a direct reflection of the diversity of races living there. Foodways are influenced by religion and ethnic group. The famous hawkers' food centers are the best place to sample the various Singaporean cuisines and why Singapore is considered by many to be "the food capital of Asia." There are very strictly enforced official Public Health controls in Singapore, so it is safe to eat food from any of the restaurants or stalls.

Rice is eaten on a daily basis. With it, people enjoy fish, seafood, and chicken cooked in a wide variety of ways. **Roti prata**, and Indian dough-bread, is enjoyed for breakfast by all groups. Chinese noodles are popular for lunch. **Dim sum** (Chinese dumplings) is favorite snacks, **Poh piah** are spring rolls filled with shredded turnip, bamboo shoots, bean curd, prawns, and pork. **Fish head curry** (in a sauce with tomatoes, pineapple, and green onions) is a favorite dish. **Tauhu goreng** is fried tofu with sweet sauce. Spicy Malay foods are dipped in peanut sauce.



Fish Head Curry



Poh piah



Tauhu goreng

Food Culture of SEA Countries

Thailand. Thai cuisine is one of the most complex among Asian countries influenced by its neighbors: India and Myanmar to the south, Laos to the east, Malaysia to the south, and Cambodia to the southeast. With their Buddhist background, big cuts of meat were shredded and blended with herbs and spices. Essential flavoring ingredients are fermented fish sauce (*nam pla*), fresh herbs and spices such as Thai holy basil, lemongrass, and galangal. Shrimp paste, a combination of ground shrimp and salt, is also extensively used. Thai dishes in the Central and Southern regions use a wide variety of leaves rarely found in the west, such as kaffir lime leaves. Its characteristic flavor appears in nearly every Thai soup (e.g., the hot and sour **Tom yam**) or curry from those areas. Thai cooking is one of the fastest-growing and most popular of world cuisines today.



Pad Thai



Green Curry



the overall meal:
sour, sweet,
salty, bitter, and
spicy.

Food Culture of SEA Countries



Vietnam. Soup is customarily served for breakfast in big bowls consisting of steaming noodles in clear broth (*pho*), with meat and any number of ingredients added at the last minute, like bean sprouts, cilantro, basil, chili peppers, lime slices, and green onions. It is an unusual mélange of cooked rice noodles, raw vegetables and herbs, and shaved raw meat or seafood that cooks in the broth just as it is brought to the table. Fish sauce (*nuoc mam*), chili-garlic sauce, and/or *hoisin* sauce are placed in nearby dipping dishes to spice food. For lunch and dinner rice is consumed with sautéed vegetables, tofu, and a variety of pork, fish, or meat dishes with their dipping sauces.



Typical Vietnamese fare: the dipping sauces of fish and soy sauce, spring rolls, fresh salads and soup

Brain controls behavior

Dietary choices lead to specific health outcomes

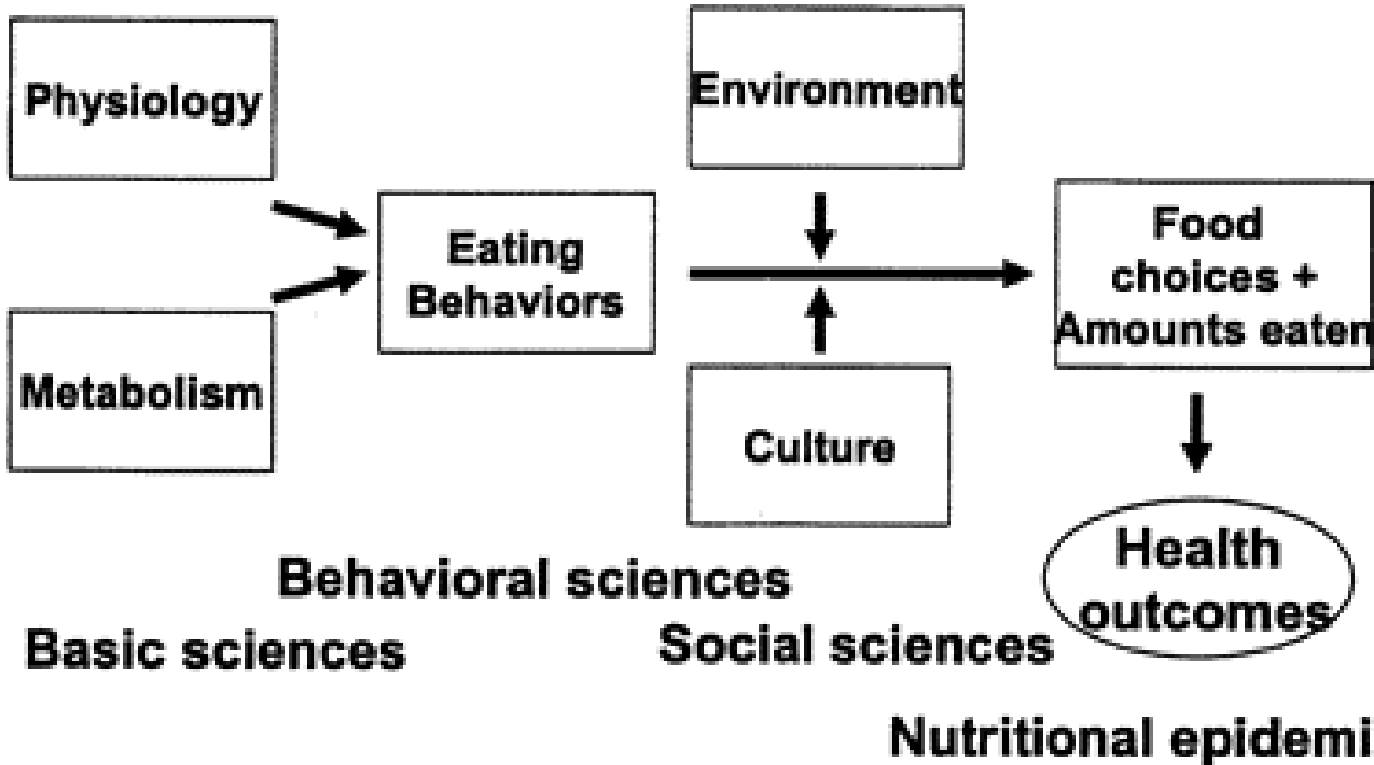


Figure 1. Influences on Food Choices

Considerations that Dictate the Health Impact of Traditional SEA Diet



#1 Plant-based diet

#2 Fish as main course

#3 Meat as flavor enhancers

#4 Little or no dairy products

#5 Essential part of family interaction



Considerations that Dictate the Health Impact of Traditional SEA Diet



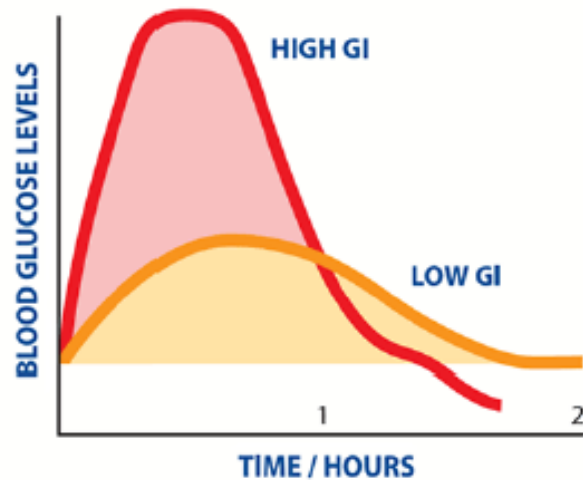
#1 Plant-based diet

- complex carbohydrates, more fiber, antioxidants

Complex carbohydrates
provide vitamins,
minerals,
and fiber



Low vs high Glycemic Index



The amount of carbohydrate in the reference and test food must be the same.

Low GI	≤ 55
Medium GI	56 – 69
High GI	≥ 70

- A meta-analysis of low GI diet showed that such diets produced a **0.4%** decrement in A1c when compared with high GI diets

Metabolic Effects of Low GI Diet



May delay the return of hunger, by slowing gastric emptying

Induces rapid initial weight loss

Reduces postprandial hyperglycaemia, hyperinsulinaemia and rebounds in circulating free fatty acids

Reduces cholesterol synthesis, bile acid and cholesterol re-absorption from the ileum



INTER-HEART: Risk of acute MI associated with risk factors in the overall population

Risk factor	Odds ratio adjusted for all (99% CI)
ApoB/ApoA-1 (fifth quintile compared with first)	
C	
D	
H	
A	
P	
V	
E	0.86 (0.76-0.97)
Alcohol	0.91 (0.82-1.02)
All combined	129.2 (90.2-185.0)

Daily intake of vegetables and fruits reduces the risk of developing heart attack by 30%

HOWEVER...



- In 1978, each Filipino consumed 145 grams of vegetables per day. Three decades later, in 2008, intake dropped to 110 grams/day.
- According to the Food and Nutrition Research Institute (FNRI), one person consume 110 grams of vegetables, 19 grams of roots and tubers and 10 grams of beans, nuts and seeds or a total of 51 kg per year.
- Low intake of fruits and vegetables is among the top 10 selected risk factors that can cause gastrointestinal cancer, heart disease and stroke. Thus, WHO recommends **400 grams per day** or **146 kg per year of vegetables and fruits** to help prevent various diseases.



TOP 20 COMMONLY CONSUMED FOOD PRODUCTS AMONG FILIPINO HOUSEHOLDS

The average daily individual food intake comprised mostly of rice, fish and vegetables. Over the last 10 years, the mean one-day per capita food intake has been on a down trend from 886 grams in 2003 to 855 grams in 2013.

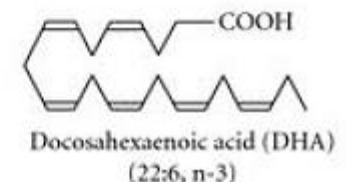
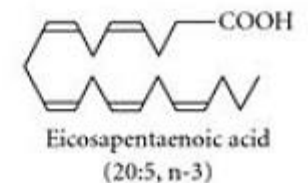
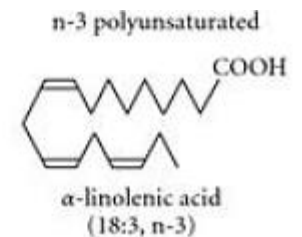
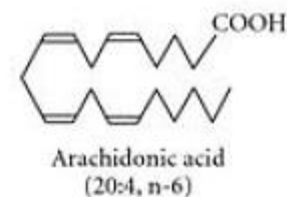
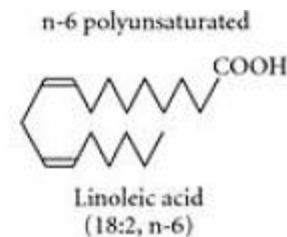
The top 20 commonly consumed foods of Filipinos did not change, except for the rankings.

- | | |
|-----------------|---------------------|
| 1. RICE | 11. PORK MEAT |
| 2. SALT | 12. VINEGAR |
| 3. COOKING OIL | 13. VETSIN |
| 4. COFFEE | 14. INSTANT NOODLES |
| 5. SUGAR | 15. CHICKEN |
| 6. BREAD | 16. BISCUITS |
| 7. ONION | 17. TOMATOES |
| 8. GARLIC | 18. EGGPLANT |
| 9. EGG, CHICKEN | 19. POWDERED MILK |
| 10. SOY SAUCE | 20. BANANA |

SOURCE: 2013 FOOD CONSUMPTION SURVEY BY THE FOOD AND NUTRITION RESEARCH INSTITUTE
OF THE DEPARTMENT OF SCIENCE AND TECHNOLOGY (FNRI-DOST)

Considerations that Dictate the Health Impact of Traditional SEA Diet

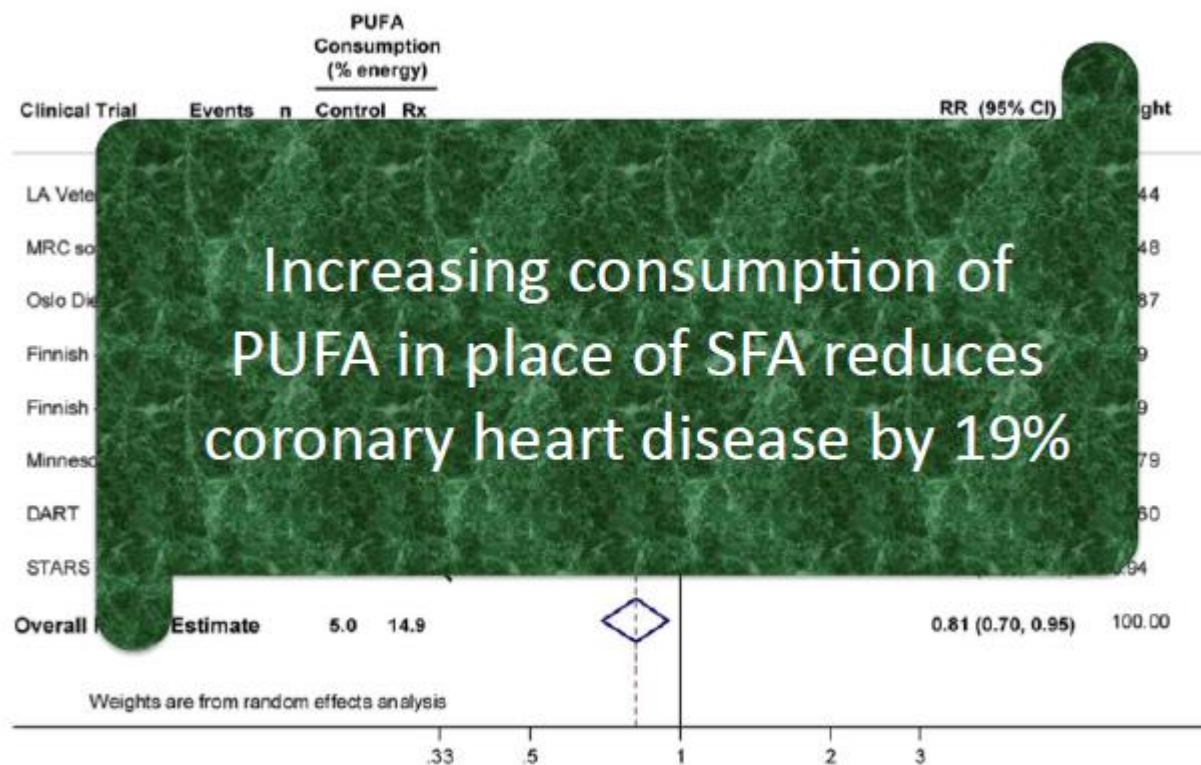
#2 Fish as main course - polyunsaturated fatty acids



Effects on Coronary Heart Disease of Increasing Polyunsaturated Fat in Place of Saturated Fat: A Systematic Review and Meta-Analysis of Randomized Controlled Trials

Dariush Mozaffarian^{1,2,3*}, Renata Micha², Sarah Wallace²

Increasing PUFA consumption in place of SFA
Reduces occurrence of CHD events



The Fisheries Sector needs increased production, sustainability and resilience!



AHA recommends 1 gram of active omega-3 compounds daily

Found in:

- 4-ounce white albacore tuna
- 2 to 3 ounces of salmon (pink or red)
- 2 ounces of herring
- 2 to 3 ounces of sardines
- 8 or more ounces of crab, shrimp, and lobster



Each tablespoon of ground flaxseed contains about 1.8 gms of plant omega-3s.

Considerations that Dictate the Health Impact of Traditional SEA Diet



#3 Meat as flavor enhancers - meat enhances umami taste

Taste is in charge of evaluating the nutritious content of food and preventing ingestion of toxic substances

- **Sweet** Permits identification of energy-rich nutrients (sugars)
- **Salty** Ensures proper dietary electrolyte balance (salts)
- **Sour and Bitter** Warn against intake of potentially noxious and/or poisonous chemicals (acids)
- **Umami** Allows recognition of amino acids and nucleotides

Foods & Ingredients rich in free glutamate

- Vegetables: tomato chinese cabbage, asparagus, corn, moringa, mushroom
- Protein-rich foods: meat, fish, seafoods
- Fermented foods: patis, bagoong, buro, cheese, ham



Representative Foods with umami taste



sea vegetables –
wakame and nori



fresh tuna



shiitake
mushroom



bonito

Estimated intake of glutamate added in Asian Cuisine



- Asian countries people consume in average 1,200–1,700 mg/day of added GLU.

Is the amount of added glutamate in SEA cuisine safe?

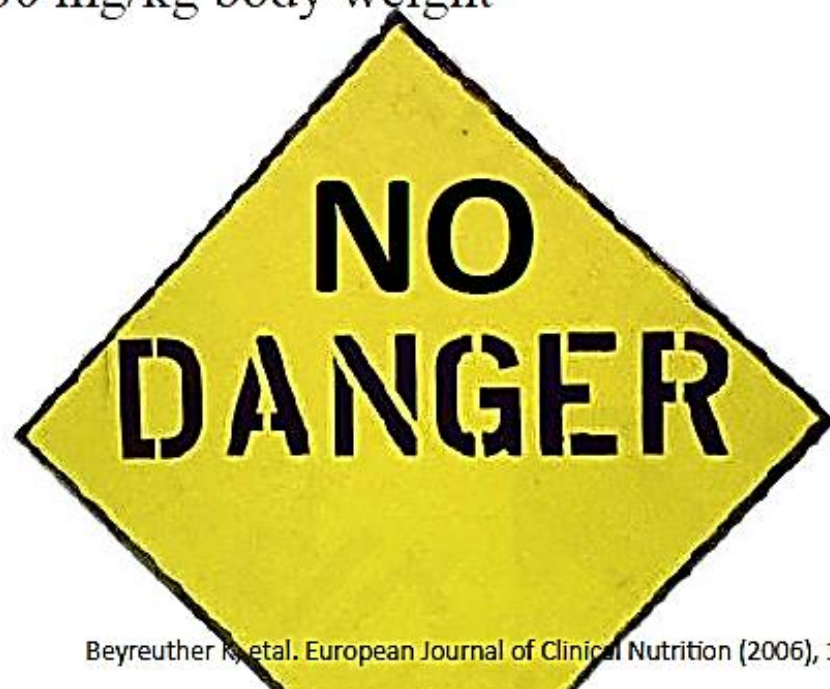
- Based on dietary animal studies
 - NOAEL: 16,000 mg/kg body weight*

If you weigh 50 kg, the maximum amount you can take which is still safe is 800,000 mg/day

NOAEL: No Observed Adverse Effect Level

*Calculated in weaning animals

*Around 800 g in a 50-kg individual

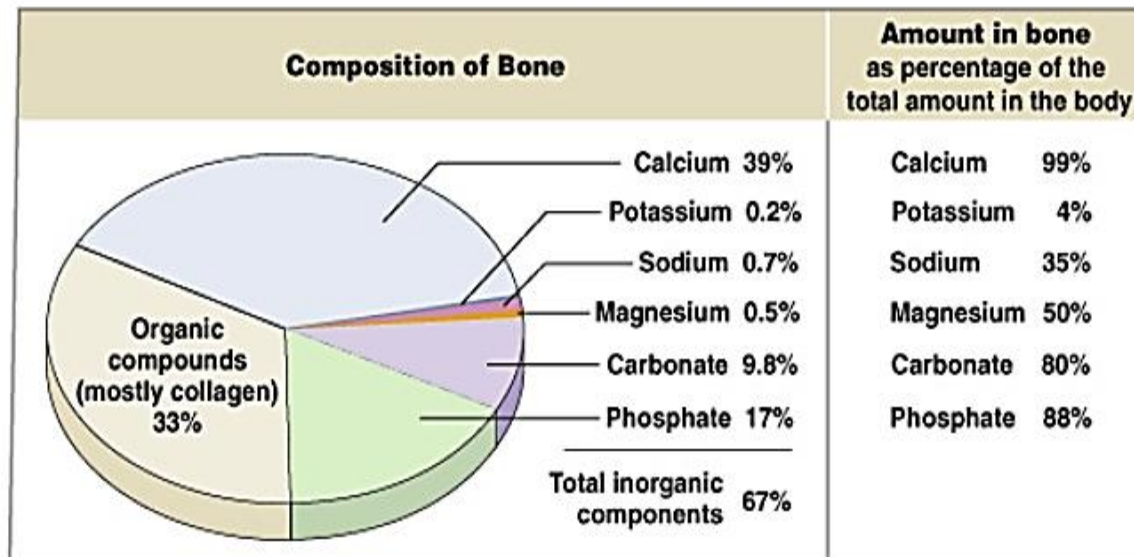


Considerations that Dictate the Health Impact of Traditional SEA Diet



- ## #4 Little or no dairy products
- limits the amount of calcium

99% of Total Calcium in the Body
Is In The Bone



**Low dietary
calcium can
contribute to
osteoporosis**

Low dietary calcium can contribute to osteoporosis...

There are non-dairy sources of calcium...

- The best sources of calcium are milk, yogurt, and cheeses;
- Other excellent sources are small fishes and shellfish eaten with bones and shell (e.g., *dilis*, *alamang* or shrimp fry, and other small crispy-fried *daing*), *canned* small *bangus* processed like sardines, salmon or sardines with the bones.
- Sources of well-absorbed calcium for vegans include calcium-fortified **soy milk** and juice, calcium-set **tofu**, soybeans and soynuts, *bok choy*, broccoli, collards, Chinese cabbage, kale, mustard greens, and okra

Weaver CM, Plawecki KL. Dietary calcium: adequacy of a vegetarian diet. *Am J Clin Nutr* 1994;59 (suppl):1238S-1241S.

- Dark-green leafy vegetables, (e.g., jute or *saluyot*, *malunggay*, *camote* and *kangkong* tops, *gabi* leaves, *kulitis* or spinach, *mustasa* (mustard greens), and *alugbati*. But, phytates, oxalates and high fiber contents of the leafy vegetables may reduce the absorption of calcium. Thus, eat liberal serving portions.

(Jamorabo-Ruiz, Claudio & Sy, 2006)



Considerations that Dictate the Health Impact of Traditional SEA Diet



#5 Essential part of family interaction - a lot of opportunities to eat!

Meal is an essential part of family relationships!



Family Occasions

Baptisms, Confirmations
Debuts, Graduations,
Engagements/Betrothals
Weddings, Anniversaries
Departures –Despedida
Arrivals – Bienvenida
Funeral Wakes
and
Many other celebrations
where food take center stage

THAI FOOD FESTIVAL

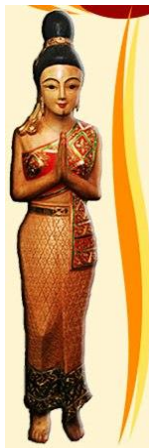
TOM YAM GOONG
TOM KHA GAI
PLA NUENG
PANAENG NUEA
GAI PAAD BAI KA PROW
YAAM TALAY
SOM TAM
KHAO (Rice)
MEE GROB
KAO NIO MA MUANG
GLUOY TOD
BEVERAGES

PHILIPPINES

PISTA SA NAYON SALU-SALO

Kinilaw na Tanigui
Pancit Molo Soup
Morcon
Lechon de Leche with Liver Sauce
Chicken Galantina
Crab Relleno
Lengua Estofada
Kanin sa Pandan
Seafood Paella
Lumpiang Ubod
Filipino Fruit Salad
Assorted Sweet Desserts:
Leche Flan, Ube Halaya, Pastillas de Leche
Cold or Hot Beverages
(Guest's Choice)

Quiapo Fiesta





Health Impact of Traditional SEA Cuisine: Summary



- SEA Cuisine is diverse but has common features and unique characteristics
- The uniqueness of the ASEA diet is influenced by several factors, mainly cultural in nature
- The health impact of traditional SEA cuisine stems from its characteristic use of more plant food, fish as main course, meat as flavor enhancers, and with little dairy products.



Sustainable Diets



A healthy dietary pattern for the population is also a healthy dietary pattern for the planet.

Dietary pattern—The quantities, proportions, variety or combinations of different food and beverages in diets, and the frequency with which they are habitually consumed

- Plant-based dietary patterns, e.g., Prudent diet ~ best dietary patterns in terms of health environment sustainability.
- Higher consumption of animal-based foods, mainly meat, was associated with a greater impact on the environment.
 - One calorie from beef requires 40 calories of fuel, whereas one calorie from grains can be obtained from 2.2 calories of fuel.
- **Increasing adherence to the Mediterranean Diet in Spain was reported to reduce greenhouse gas emissions (72%), land use (58%) and energy consumption (52%), and water consumption (33%).**
 - ~ Miguel A. Martinez-Gonzalez, Maira Bes-Rastrollo 2016. Mediterranean Diet as a sustainable dietary pattern. Rev Esp Nutr Hum Diet. 2016; 20(Suppl. 1): 362 - 363

plant-based diets even in NCDs

high in grains, vegetables, fruits, potatoes,
nuts, seeds, legumes, fish, and olive oil,
low in red meat, poultry, dairy, and alcohol.

Mediterranean Diet:



Importance of Nutrition In Aging

- Aging is an inevitable and natural process
- Good nutrition and physical activity can improve the quality of life
 - Healthy eating improves the mood, which in turn boosts physical activity.
 - Regular physical activity is the strongest predictor of mobility in later years
- Healthy habits may lower disease risk
- Good nutrition affects:
 - Healing – helps the body build new cells, repair breaks and sprains, and heal after illness or surgery
 - Emotional Strength – helps your body and mind deal with stress
 - Future Health – helps you stay healthy as you grow older



- Reform starts with self and family
- Focus on Gut Microbiota and Health

- **Food utilization** needs a body in good physical condition to use food efficiently in order to live to the fullest.



MIND Diet

Recommends higher levels of vegetables, especially leafy greens, because they appear to have a positive association with slowing cognitive decline.

Fruits, except for berries, are not associated with slowing cognitive decline





Basic Tenets of Health that have Withstood the Test of Time

1. Proper Food Choices/Balanced Diet
2. Regular Exercise
3. Hydration/Drink Plenty of Clean Water
4. Maintain a Healthy Gut
5. Stress Reduction/Management
6. Get Plenty of High Quality Sleep

THE POWER OF THE FIRST 1,000 DAYS

The right nutrition in the 1,000 days between a woman's pregnancy and her child's second birthday builds the foundation for a child's ability to grow, learn and thrive.

Pregnancy: Pre-pregnancy to birth

Babies developing in the womb draw all of their nutrients from their mother. If mom lacks key nutrients, so will her baby, putting the child's future health and development at risk.



Infancy: Birth to 6 months

Breast milk is superfood for babies. Not only is it the best nutrition an infant can get, but it also serves as the first immunization against illness and disease.



Toddlerhood: 6 months to 2 years

Nutrients from a variety of healthy foods are an essential complement to breast milk to ensure healthy growth and brain development.



The impact of good nutrition early in life can reach far into the future.
Children who get the right nutrition in their first 1,000 days:

ARE 10x MORE

likely to overcome the most life-threatening childhood diseases¹



COMPLETE

4.6 more grades of school²



Go on to earn

21% more in wages as adults³



Are more likely as adults to have **healthier families**⁴



SOURCES

1. Save the Children, Nutrition in the First 1,000 Days: State of the World's Mothers 2012.
2. Hoddinott, J. et al "Adult consequences of growth failure in early childhood." American Society for Nutrition, 2013.
3. Ibid.
4. Ibid.

1,000
DAYS

www.thousanddays.org

*“Knowing is not enough; we must apply.
Willing is not enough; we must do.”*

—Goethe



Eat Right, Exercise and Have a Good Night Sleep!



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