20th Congress of the ISRNM June 16 June 2022 Guangzhou, China

Joint webinar of International Society of Renal Nutrition and Metabolism and International Federation of Kidney Foundation -World Kidney Alliance

World Kidney Recipes Perspectives and Challenges



Dr. SF Lui, BBS, MH, JP.
President, IFKF-WKA



(1) IFKF-WKA

(2) World Kidney day 2021, 2022

(3) World Kidney Recipes

Perspectives and Challenges
Why? What? How?



International Federation of Kidney Foundations – World Kidney Alliance (IFKF-WKA)

IFKF was established by Joel Kopple Turkey, 2000.



IFKF was re-launched as IFKF-WKA virtually on 1 July 2020 to embrace the whole renal community worldwide.



Vision

- Better kidney health for all.
- Optimal care for people affected with kidney disease.

Mission Leading a worldwide movement to

- Promote **better kidney health** with primary, secondary and tertiary preventive measures.
- Promote optimal treatment and care to maximize the health, quality of life, and longevity for people with or at high risk for developing kidney disease.



Strategy & Programs

IFKF-WKA - A worldwide renal community

- 1. To establish an international community and a network for people and organizations who are committed to improving the health and care of people with or at high risk for developing Kidney Disease or Kidney Failure.
- 2. To act as a **global advocate** for issues related to Kidney Health and Kidney Disease, promote prevention of kidney disease and better care of patients with Kidney disease.
- 3. To partner with stakeholders, healthcare professionals, interested people, including patients and patient advocacy groups and related organizations worldwide.



Strategy & Programs

- 4. To promote <u>patient-centred care</u>, patient engagement and empowerment.
- To share expertise, experience, resources and knowledge.
- 6. Flagship programs:
 World Kidney Online (education)
 World Kidney Survey & Research
 World Kidney Meeting & Consensus
 World Kidney Recipes
 World Kidney Day

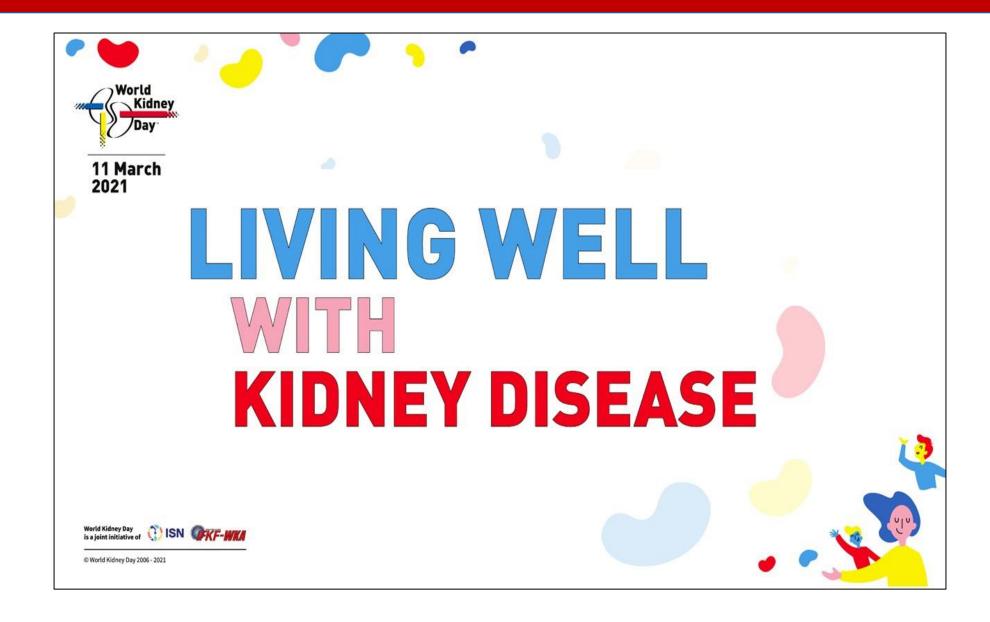




WORLD KIDNEY RECIPES Why? What? How?



2021 World Kidney Day theme



Kidney International (Editorial) and other 35 worldwide medical journal

Symptoms

Fatigue Mobility

Pain

Stress/anxiety

Depression

Cognitive impairment

Sleep problems

Cramps

Restless legs

Gastrointestinal symptoms

Life impacts

Ability to work

Ability to travel

Ability to study

Impact on family and friends

Financial impact

Dialysis-free time

Dietary restrictions

Lifestyle changes Social activities

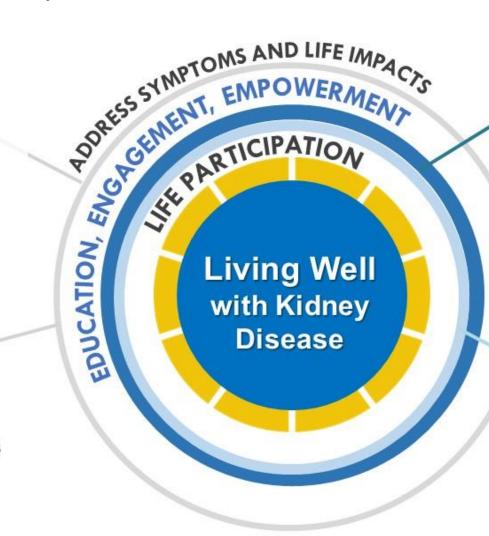


Figure 1 | Conceptual framework "Living Well with Kidney Disease" based on patient centeredness and empowering patient, with a focus on effective symptom management and life participation.

Education Engagement Empowerment

Strengths-based approach

Communication and education
Build resilience
Strengthen social connections
Increase awareness and knowledge
Access to support
Build confidence and control with selfmanagement

Clinical strategies

Preserve kidney function
Patient-friendly lifestyle and diet
Pharmacological management
Delay dialysis start if possible
Incremental transition to dialysis
Patient-centered dialysis prescriptions
Preserve residual kidney function

WKD 2021 Pilot study 7 members of IFKF-WKA

Bangladesh
Hungary
Italy
India Tanker Foundation
India Renal Foundation
Hong Kong
Malaysia

Jan – February 2021 N=4807



Living well with kidney disease

Hong Kong Kidney Foundation, Hong Kong Society of Nephrology And Hong Kong Association of Renal Nurses jointly hosting

A patient survey with a questionnaire

- · Are you living well?
- What may be troubling or preventing you from living well?
 - · What you may do for yourself to live well?
- What you may wish others to do for you to enable you to live well?

The survey can help you to conduct a self evaluation and reflection.

We would like to know how you are doing?
What may be troubling you?
What we can do for you?

Please take 5 minutes to complete the on-line survey



Scan the barcode to go to the on-line survey or use this link https://cutt.ly/wjpGqn4

I have the following life impact problem/ concern which is affecting me from living well with kidney disease?

Bangladesh		Hungary		Italy		INDIA Tanker Foundation		India Renal Foundation		Hong Kong		Malaysia	
Financial impact	59%	Lifestyle changes	44%	Lifestyle changes	54%	Financial impact	64%	Ability to work	68%	Financial impact	50%	Financial impact	51%
Ability to work	40%	Ability to work	40%	Impact on family and friends	41%	Ability to work	47%	Financial impact	57%	Diet restriction	39%	Lifestyle changes	48%
Impact on family and friends	36%	Financial impact	38%	Ability to travel	39%	Diet restriction	43%	Lifestyle changes	35%	Impact on family and friends	38%	Diet restriction	40%
Lifestyle changes	13%	Ability to travel	35%	Ability to work	36%	Ability to travel	33%	Ability to travel	32%	Ability to work	38%	Social Activities	31%
Social Activities	13%	Impact on family and friends	33%	Diet restriction	35%	Lifestyle changes	23%	Diet restriction	24%	Ability to travel	35%	Ability to travel	31%

What I can do for myself to live well with kidney disease?

Comply with medical advice, including medication	7
Take better care of myself: manage the underlying disease	7
Eat smart, eat well	7
Comply with dialysis treatment as instructed	5
Understand my illness and treatment, take part in self-care	4

The number of center reporting the item as one of the top 5 items

2022 World Kidney Day theme



www.kidney-international.org

editorial: special report

Kidney International Editorial 2022 Carried by 30 medical journals worldwide

1St. Vincent's Hospital, Department of Medicine, University of Melbourne, Melbourne, Victoria, Australia; ²Division of Nephrology, Hypertension and Kidney Transplantation, Department of Medicine, University of California Irvine, Orange, California, USA; 3School of Nursing and Midwifery, Griffith University, Southport, Queensland, Australia; 4Italian Kidney Foundation, Rome, Italy; ⁵Brigham and Women's Hospital, Renal Division, Department of Medicine, Boston, Massachusetts, USA; ⁶Tamilnad Kidney Research (TANKER) Foundation, The International Federation of Kidney Foundations-World Kidney Alliance (IFKF-WKA), Chennai, India; ⁷International Society of Nephrology, Brussels, Belgium; 8Division of Nephrology and Hypertension, 1st Department of Internal Medicine, AHEPA Hospital, Aristotle University of Thessaloniki, Thessaloniki, Greece; 9Nephrology Unit, Department of Internal Medicine, Faculty of Medicine, Cairo University, Giza, Egypt; ¹⁰Renal Unit, Department of

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Kidney health for all: bridging the gap in kidney health education and literacy

Robyn G. Langham¹, Kamyar Kalantar-Zadeh², Ann Bonner³, Alessandro Balducci⁴, Li-Li Hsiao⁵, Latha A. Kumaraswami⁶, Paul Laffin⁷, Vassilios Liakopoulos⁸, Gamal Saadi⁹, Ekamol Tantisattamo², Ifeoma Ulasi¹⁰ and Siu-Fai Lui¹¹ for the World Kidney Day Joint Steering Committee¹²

Health literacy is the degree to which **persons** and **organizations** have or equitably enable individuals to have the ability to **find**, **understand**, **and use** information and services to inform health-related decisions and actions for themselves and others.

Rather than viewing health literacy as a patient deficit, improving health literacy largely rests with health care providers communicating and educating effectively in codesigned partnership with those with kidney disease.

editorial: special report

Kidney International Editorial 2022 Carried by 30 medical journals worldwide

1St. Vincent's Hospital, Department of Medicine, University of Melbourne, Melbourne, Victoria, Australia; ²Division of Nephrology, Hypertension and Kidney Transplantation, Department of Medicine, University of California Irvine, Orange, California, USA; 3School of Nursing and Midwifery, Griffith University, Southport, Queensland, Australia; 4Italian Kidney Foundation, Rome, Italy; ⁵Brigham and Women's Hospital, Renal Division, Department of Medicine, Boston, Massachusetts, USA; ⁶Tamilnad Kidney Research (TANKER) Foundation, The International Federation of Kidney Foundations-World Kidney Alliance (IFKF-WKA), Chennai, India; ⁷International Society of Nephrology, Brussels, Belgium; 8Division of Nephrology and Hypertension, 1st Department of Internal Medicine, AHEPA Hospital, Aristotle University of Thessaloniki, Thessaloniki, Greece; 9Nephrology Unit, Department of Internal Medicine, Faculty of Medicine, Cairo University, Giza, Egypt; ¹⁰Renal Unit, Department of

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Kidney organizations should work towards shifting the patient-deficit health literacy narrative to that of being the responsibility of healthcare providers and health policymakers.

Bridge the Knowledge Gap to better Kidney Health

What are the gaps?

How to bridge the gaps?

A pilot survey by IFKF-WKA

Access to healthcare information by the kidney patients

Do you have enough healthcare/ medical information about your kidneys and kidney disease to care for yourself?

What kind of healthcare/medical information on

- (i) kidney and kidney diseases
- (ii) treatment of kidney disease/failure
- (iii) living well with kidney disease you want to know?

Where you have obtained/ would prefer to obtain the information on the best healthcare/ medical information on kidney disease and treatment?

Serial No:		



Bridge the knowledge gap to better kidney care



International Federation of Kidney Foundations - World Kidney Alliance

A WORLD KIDNEY PATIENTS SURVEY

"Access of healthcare information for patients with kidney disease/ kidney failure"

	conducted by	
1	You are (or the carer of)	Tick one
a	Someone with kidney Disease	
b	Someone with kidney failure (not yet on dialysis)	
С	Someone on peritonieal dialysis	
d	Someone on haemodialysis	
e	Someone with a kidney transplant	
2	Your age	Enter age (in number)
3	Your Education level	Tick one
a	High school level / Grade 10 or above / Higher education institution	
b	Junior school level / Secondary school / Grade 7-9	
С	Primary school level / Grade 1-6	
d	No formal school education	
4	Do you have enough healthcare/medical information about your kidneys and kidney disease to care for yourself?	Please give 1-10 point (1 =not enough, 10 =very adequate)
5	What kind of healthcare/medical information on kidney and kidney diseases you want to know?	Tick one (can be many)
а	About the kidney and kidney function	
b	The common causes of kidney disease and failure	
С	Symptoms of kidney disease	
d	Am I at risk of kidney disease/ kidney failure?	
e	How can I protect my kidneys?	
f	Are my kidneys working OK? (the status of my kidney function)	
ø	Other (please list)	

6	What kind of healthcare/medical information on the treatment of kidney
	<u>disease/failure</u> you want to know?

	disease/railure you want to know?	Tick one (can be many)
а	Treatment of kidney disease	
b	When will I need dialysis (for those with kidney failure)	
С	What are my options for dialysis treatment (for those with kidney failure)	
d	Information on peritoneal dialysis	
e	Information on haemodialysis	
f	Information on kidney transplant	
g	Information on palliative care	
h	Information on complications of kidney disease	
i	Can alternative medicine help me?	
ĺi –	Other (please list)	

7 What kind of healthcare/medical information on <u>living well with kidney disease</u> you want to know?

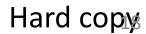
you want to know:		Tick one (can be many)
How to live well with kidney disease? (work, daily life, tra	avel)	
How to eat well with kidney disease?		
How to keep fit with kidney disease?		
How to manage psychological stress?		
How can I enhance the care for myself?		
The social support for patient?		
How to reduce the impact on family and friends?		
How can I continue or return to work or study?		
Othor	(places list)	

8	List up to three places where you have obtained the best	List in order
	healthcare/medical information on kidney disease and kidney treatment	(1=first choice, 2=second choice, 3=third choice)
а	Hospital & clinic (e.g. visit, education class, printed patient education materials)	
b	Print media (e.g open public sources - newspapers, magazine, book, booklets)	
С	Electronic media (e.g. TV, radio)	
d	Social media (e.g. Facebook, YouTube, IG)	
e	Website (reliable, easy to find and access anytime, any where)	
f	Other patients	
g	Other source (please list)	

9	List up to three places where you would prefer to obtain the best healthcare/medical information on kidney disease and kidney treatment	List in order (1=first choice, 2=second choice, 3=third choice)
a	Hospital & clinic (e.g. visit, education class, printed patient education materials)	
b	Print media (e.g open public sources - newspapers, magazine, book, booklets)	
С	Electronic media (e.g. TV, radio)	
d	Social media (e.g. Facebook, YouTube, IG)	
e	Website (reliable, easy to find and access anytime, any where)	
f	Other patients	
g	Other source (please list)	

	F)
Please list any other suggestion	

10

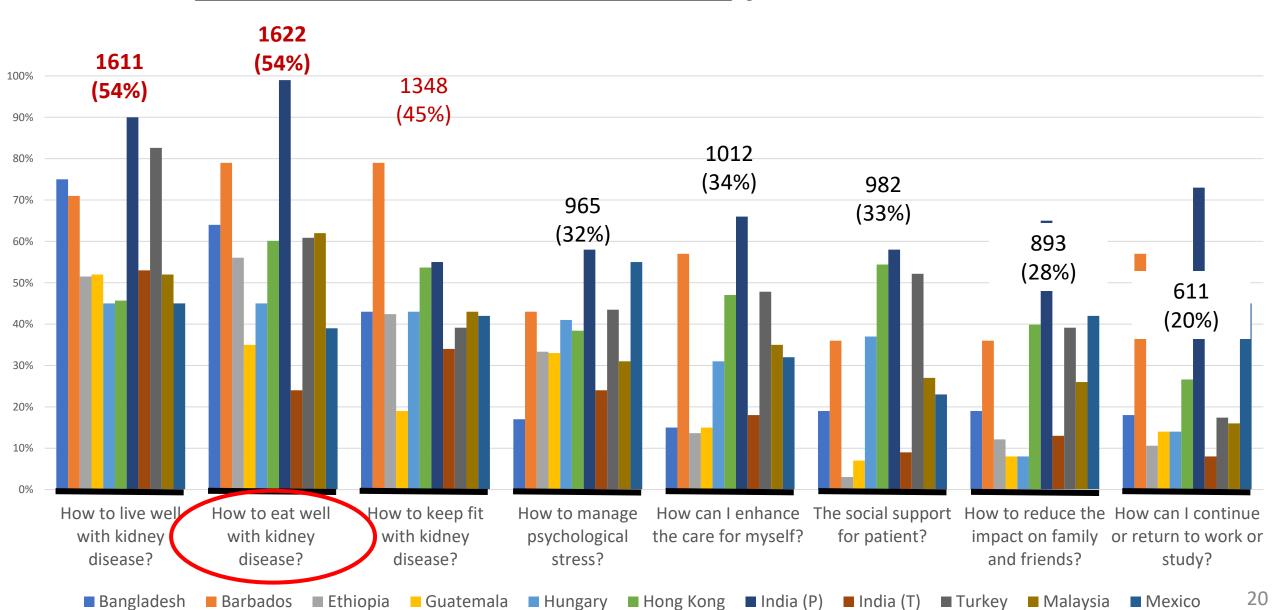


Pilot survey conducted Jan – Feb 2022

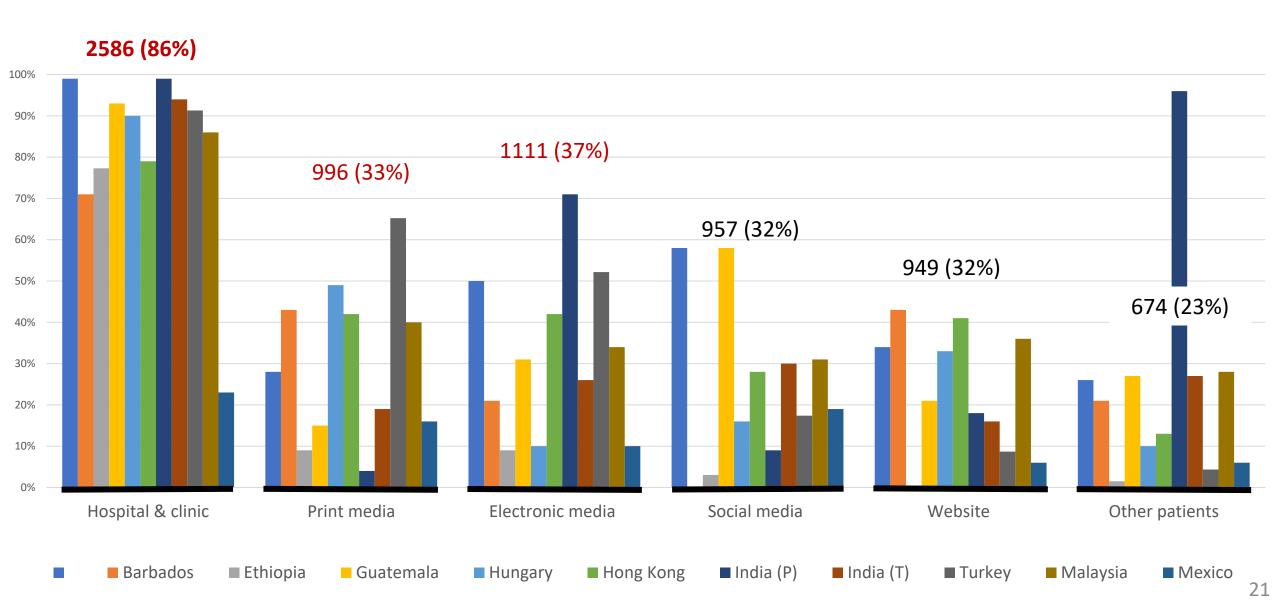
	Place	N
1	Bangladesh	350
2	Barbados	14
3	Ethiopia	55
4	Guatemala	91
5	Hungary	51
6	Hong Kong	1090
7	India	633
8	Turkey	23
9	Malaysia	652
10	Mexico	31
	TOTAL	3001

Yo	You are (or the carer of)		
a	With kidney disease	13%	
b	With kidney failure (not yet on dialysis)	2%	
С	On peritoneal dialysis	21%	
d	On haemodialysis	57 %	
e	With a kidney transplant	7%	

What kind of healthcare/medical information on living well with kidney disease you want to know?



List up to three places where you would prefer to obtain the best healthcare/medical information on kidney disease and kidney treatment



Findings

- Patients want to know:
 - How to protect kidneys
 - Common causes
 - Kidney function
 - Complications
 - Alternative medicine
 - Transplantation
 - Living well
 - Eat well
 - Keep fit

- Patients wish to get the information
 - From healthcare professionals (86%)
 - Electronic media (37%)
 - Website (32%)
 - Social media (32%)
 - Printed matters (33%)
 - Other patients (23%)

Way forward (1)

- Enhance the skill of healthcare professionals to transfer knowledge.
- A more effective and efficient way for healthcare professionals to provide the health and healthcare information (mass transfer).

Way forward (2)

Promote website and online webinar

Pros: - Delivered by healthcare professionals (what patients want)

- Factual and trusted information (social media cannot be control)
- Webinar recordings posted on website
- Information can be accessed by everyone, anytime (24hr x 7) and any where (in the world)
- Content can be in the format the receivers can understand
- Co-design with patients and all healthcare professionals.

(Use social media to promote the site but not as a source of education information)



(1) To address "what matters to the patient"

WORLD KIDNEY RECIPES WORLD KIDNEY RECIPES



Eat Smart, Eat Well

(2) To bridge the knowledge gap

An online platform to provide healthcare information on Kidney Nutrition, Diet and Recipes for healthcare professionals, patients and carers. Accessible by anyone, anytime, anywhere around.





National Kidney Foundation

KDOQI CLINICAL PRACTICE GUIDELINE FOR NUTRITION IN CKD: 2020 UPDATE

T. Alp Ikizler, Jerrilynn D. Burrowes, Laura D. Byham-Gray, Katrina L. Campbell, Juan-Jesus Carrero, Winnie Chan, Denis Fouque, Allon N. Friedman, Sana Ghaddar, D. Jordi Goldstein-Fuchs, George A. Kaysen, Joel D. Kopple, Daniel Teta, Angela Yee-Moon Wang, and Lilian Cuppari

Abstract

The National Kidney Foundation's Kidney Disease Outcomes Quality Initiative (KDOQI) has provided evidence-based guidelines for nutrition in kidney diseases since 1999. Since the publication of the first KDOQI nutrition guideline, there has been a great accumulation of new evidence regarding the management of nutritional aspects of kidney disease and sophistication in the guidelines process. The 2020 update to the KDOQI Clinical Practice Guideline for Nutrition in CKD was developed as a joint effort with the Academy of Nutrition and Dietetics (Academy). It provides comprehensive up-to-date information on the understanding and care of patients with chronic kidney disease (CKD), especially in terms of their metabolic and nutritional milieu for the practicing clinician and allied health care workers. The guideline was expanded to include not only patients with end-stage kidney disease or advanced CKD, but also patients with stages 1-5 CKD who are not receiving dialysis and patients with a functional kidney transplant. The updated guideline statements focus on 6 primary areas: nutritional assessment, medical nutrition therapy (MNT), dietary protein and energy intake, nutritional supplementation, micronutrients, and electrolytes. The guidelines primarily cover dietary management rather than all possible nutritional interventions. The evidence data and guideline statements were evaluated using Grading of Recommendations, Assessment, Development and Evaluation (GRADE) criteria. As applicable, each guideline statement is accompanied by rationale/background information, a detailed justification, monitoring and evaluation guidance, implementation considerations, special discussions, and recommendations for future research.

In citing this document, the following format should be used: Ikizler TA, Burrowes JD, Byham-Gray LD, et al; KDOQI Nutrition in CKD Guideline Work Group. KDOQI clinical practice guideline for nutrition in CKD: 2020 update. Am J Kidney Dis. 2020;76(3)(suppl 1):S1-S107.

As they are designed to reflect the views and recommendations of the responsible KDOQI Work Group, based on data from an independent evidence review team, and because they undergo both internal and public review, KDOQI guidelines are not peer reviewed by AJKD.

The challenge:

How to adopt and apply the guideline?

How to turn it into a day-to-day practice for the patient?

26

The World Kidney Recipes: Teaming up to **Empower Patients, Care-Partners,** Dietitians, and Chefs With Culinary Creativity and Multicultural Diversity in **Renal Nutrition and Dietetics**



Kamyar Kalantar-Zadeh, Angela Wang, Linda Moore, SF Lui

TN A PARADIGM-SHIFTING effort to empower renal I nutrition communities with infinite kidney advocacy possibilities across cultures and boundaries throughout the world, the International Federation of Kidney Foundation-World Kidney Alliance (IFKF-WKA) and the International Society of Renal Nutrition and Metabolism (ISRNM) have teamed up and embarked on the World Kidney Recipes project. The main goal is to galvanize patients and their care partners to work with gastronomic experts and dietetic professionals, including chefs and dietitians, to inspire creativity in culinary medicine and medical nutrition therapy in kidney care. 1,2 Additionally, advancing the concept of the World Kidney Recipes is expected to enforce multicultural diversity in renal nutrition and kidney dietetics so that these efforts can evolve into appealing experiences for all persons and providers engaged in care for patients with chronic kidney disease (CKD) in any stage and severity.3,4

Activities under the World Kidney Recipes can entail three separate but interconnected components: (1) Engage kidney healthcare professionals and kidney advocacy organizations, including kidney foundations and nephrology societies in the art and science of culinary medicine, so that barriers and gaps along with opportunities for partnership and collaboration can be identified, in an effort to become better familiarized with and appreciate the field of applied renal nutrition in support for patients with kidney disease under real-world scenarios.5 (2) Encourage kidney patients and their family members to overcome the constraints of the often imposed dietary restrictions by embracing diversity in multicultural recipes and joy in cooking and choice of food, aligned with the 2021 World Kidney Day's theme of "living well with kidney disease,"6 and (3) Enforce patients' and care partners' education, engagement and empower-

Financial Disclosure: The authors declare that they have no relevant financial

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https://doi.org/10.1053/j.jrn.2021.08.007

A PARADIGM-SHIFTING effort to empower renal nutrition communities with infinite kidney advocacy possibilities across cultures and boundaries throughout the world, IFKF-WKA and ISRNM have teamed up and embarked on the World Kidney Recipes project.

The main goal is to galvanize patients and their care partners to work with gastronomic experts and dietetic professionals, including chefs and dietitians, to inspire creativity in culinary medicine and medical nutrition therapy in kidney care.

Nutrition → Diet → Recipes for patients with kidney disease

Perspectives Challenges

Kidney Nutrition, Diet and Recipes Perspectives

Medical doctor / nurses	 Provide the best care for the patient including nutrition aspect
Dietitians	 Assist patient to understand nutrition, explore diet option, use recipes
Patient / carer	 How can I protect (with an appropriate diet) my kidneys my life (general health) To live well

Kidney Nutrition, Diet and Recipes Challenges

Medical doctor /nurse	Knowledge (inadequate)Time (may not be the top priority)
Dietitians	TimeManpower
Patient / carer	 Patient's health literacy Able to get, understand and use information.
Insitutation Organization	 Organizational Health Literacy To provide information that users can get and understand.

Joint Steering Committee of International Federation of Kidney Foundations – World Kidney Alliance and International Society of Renal Nutrition and Metabolism on Renal nutrition, Diet and World Kidney Recipes

First JSC meeting 30th July 2021 via Zoom

Joint Steering Committee of World Kidney Nutrition, Diet and Recipes

IFKF-WKA

SF Lui (Hong Kong) Co-Convenor Kam Kalantar (US)

Ágnes Haris (Hungarian Kidney Foundation) Carlos Castro (ALE, IAP/FEMETRE, Mexico) Joel Kopple (US)

Latha Kumaraswami(India Tanker Foundation) Kelly Lambert (*Dietitian - Australia) Esther Obeng (Ghana Kidney Foundation) Ayşe Onat (Turkey Kidney Foundation)

ISRNM

Angela Wang (Hong Kong) Co-Convenor Russ Price (US)

Anna Laura Fantuzzi (*Dietitian – Italy)

Brandon Kistler (*Dietitian – US)

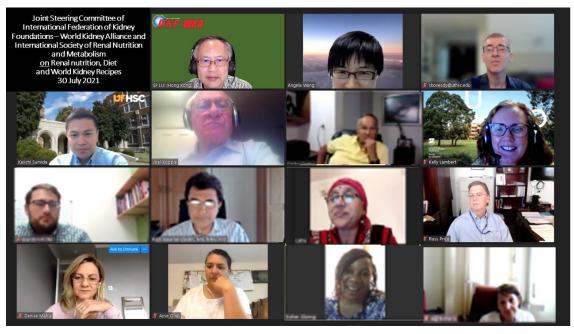
Csaba Kovesdy (US)

Denise Mafra (*Dietitian - Brazil)

Keiichi Sumida

World Kidney Recipes Working group

SF Lui, Angela Wang Maria Chan, Zarina Ebrahim Sylvia Lam, Kelly Lambert Kam Kalantar, Joel Kopple



2021 July IFKF-WKA & ISRNM Joint Project

(1) Health literacy on Kidney Nutrition & Diet

Healthcare professional
Organizations (foundation)
Patient group / patient and carer
and the general public

(2) World Kidney Recipes

Inaugural Joint Webinar of ISRNM and IFKF-KWA 4 May 2022

Pros and Cons of Plant-based Diet for Chronic Kidney Disease

https://www.youtube.com/watch?v=TFN7nCXsV3g













Inaugural Joint Webinar of ISRNM and International Federation of Kidney Foundation-World Kidney Alliance (IFKF-WKA)

Title: Pros and cons of plant based diet chronic kidney disease (Live debate)

Date: 4 May 2022 (3PM CEST)

Duration

Up to 60 minutes

Opening remarks (5 mins)

Dr. Angela Yee Moon Wang, MD. PhD

> President, ISRNM Hong Kong SAR

Dr Lui Siu Fai

President, IFKF-WKA Hong Kong SAR

Moderators

Angeles Espinoza

Kam Kalantar-Zadeh

Dietitian Mexico

Nephrologist

Speakers

Giorgina Piccoli

Joel Kopple

Pros side

USA Cons side

Click here for REGISTRATION

LIVE EVENT WITH Q and A Session



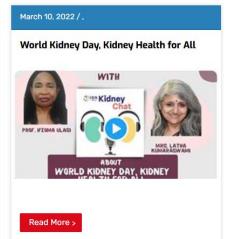
World Kidney Online Webinars

















The Launching of the "Kidneys Talk" A Live Channel on Kidney Care for Everyone



From 5 October 2021 fortnightly on Tuesday evening 8:00 - 8:45

LIVE ONLINE and to view recording





Chairman, Hong Kong Kidney



long Kong Association





A Representatives of the HKARN, co-organiser of the "Kidneys Talk"



A Representatives of the HKSN, co-organiser of the "Kidneys Talk" Channel



The poster design A life journey with kidney disease is like climbing up the mountains, many challenges, but there are many paths up the mountain.





The Launching of the "Kidneys Talk" A Live Channel on Kidney Care for Everyone



From 5 October 2021 fortnightly on Tuesday evening 8:00 - 8:45



LIVE ONLINE and to view recording



Dr. Chow Kai Ming Hong Kong Society



Chairman, Hong Kong Kidney







A Representatives of the HKARN, co-organiser of the "Kidneys Talk"

A Representatives of the HKSN, co-organiser of the "Kidneys Talk" Channel



1 Kidney and you	Kidney and Kidney disease
2 Kidney disease and you	Your kidneys are not well, you need to know!
3 Kidney failure and you	At the crossroad of kidney replacement therapy.
4 Kidney Replacement therapy 1	The myth of peritoneal dialysis
5 Kidney Replacement therapy 2	The concerns on haemodialysis
6 Kidney Replacement therapy 3	Kidney Transplant – a new beginning
7 Rehabilitation 1	Barrier free renal replacement therapy
8 Rehabilitation 2	Living well with kidney disease – Kidney Diet
9 Rehabilitation 3	Walk with you (support)

The poster design A life journey with kidney disease is like climbing up the mountains, many challenges, but there are many paths up the mountain.



Second series of Kidneys Talk For kidney patients 9 episodes

July 2022

Episode 2: Eat Smart, Eat well

Episode 3: Kidney and

Health-friendly Recipes

A "Life" journey with your Kidneys

Stage 2-3 Chronic kidney failure Stage 4
Chronic
kidney failure
(pre-dialysis)

Stage 5 End stage kidney failure

On renal replacement therapy

- haemodialysis
- peritoneal dialysis
- transplant

Different dietary information and advice is required for a patient at different time.

A continuum.

Know how to progressively modify/ adapt the diet and recipe

To improve the health literacy on Kidney Nutrition and Diet

For healthcare professionals

For health information providers

For patient and their carers

- ABC of nutrition and diet for kidney disease
 - Update on renal nutrition and diet
- Hot topics (e.g. types of diet, anti-inflammatory)
 - A new approach to renal recipe

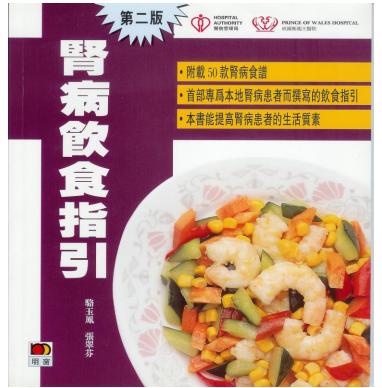




Why? What? How?



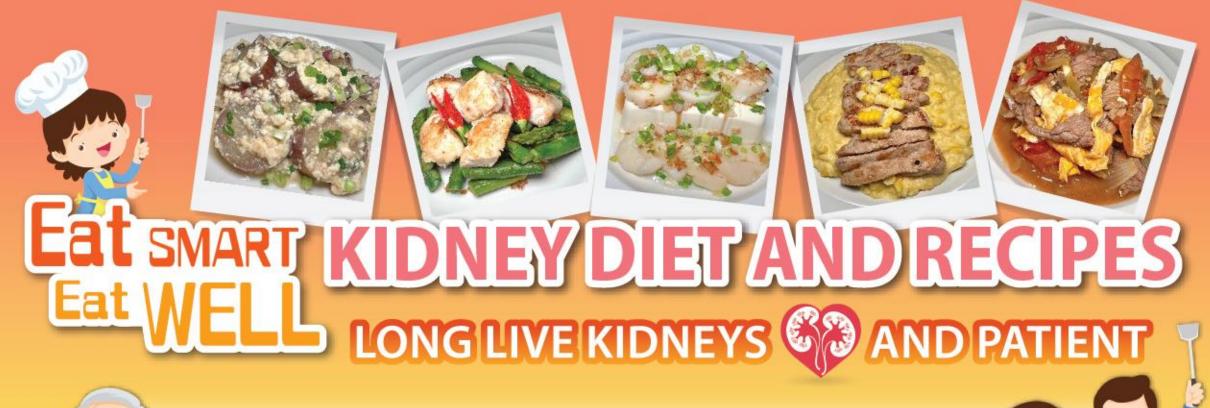




1997 Renal diet book



Kidney-friendly Health-friendly Cuisine 2022





Eat Happily - Home cooking • Eating out



DIETITIANS ASSOCIATION





HONG KONG SOCIETY OF NEPHROLOGY



ASSOCIATION OF RENAL NURSES







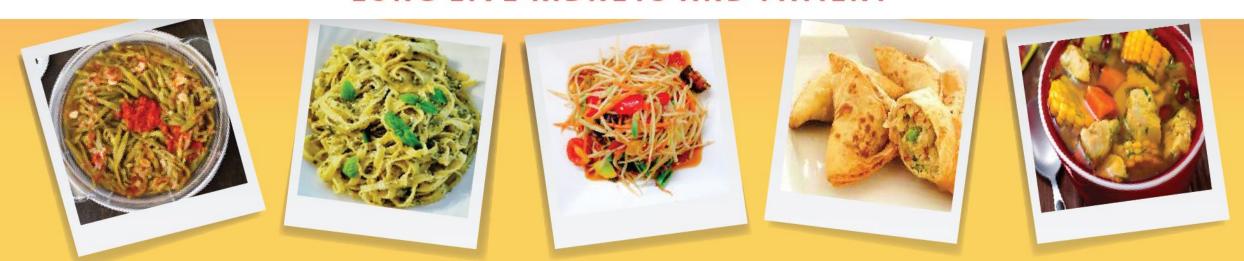






Eat Smart @ Eat well

LONG LIVE KIDNEYS AND PATIENT



Nutrition → Diet → Recipes for patients with kidney disease

Prerequisite to use the recipes

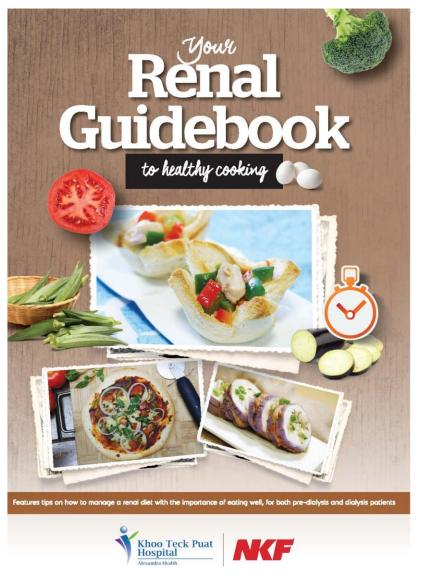
- Basic knowledge of nutrition and diet for kidney disease
- Aware of one's own condition
 - physical (BMI, nutrition status),
 - biochemistry (renal function, protein/albumin, electrolytes, sugar, lipids)
 - stage of kidney failure
 - mode of renal replacement therapy
- Is given dietary advice/prescription (daily allowance) to follow
 - Caloric
 - Protein (exchanges)
 - Carbohydrates (exchanges)
 - Fat (if a need to focus on)
 - Sodium, potassium, phosphorus (if a need to focus on)

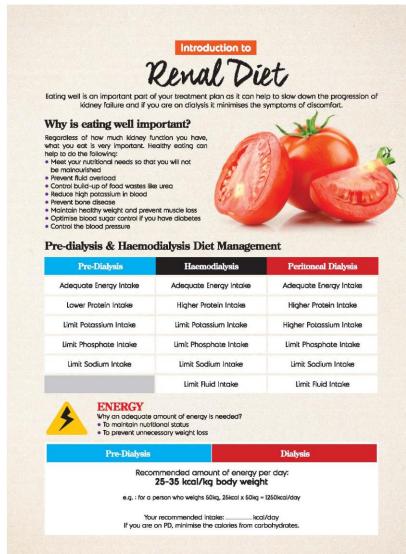
Basic knowledge Exchanges

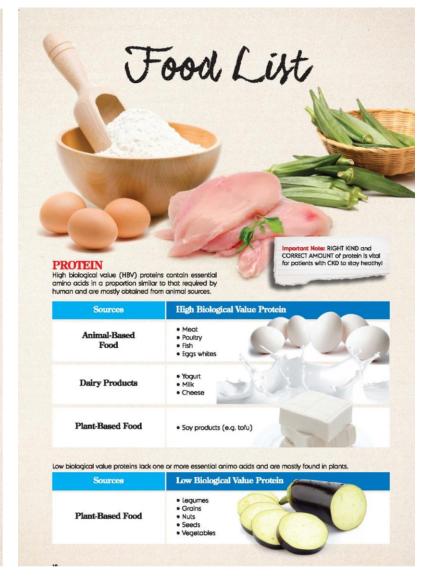
Protein (7g) Carbohydrates (15g)

Starches	80 C	0 Calories 15 g Carb., 3 g Protein, 1 g Fat	
 bread breads, other tortilla crackers cooked cereals dry cereals, unsweetened dry flour or grain pasta rice corn popcorn potato (small) potato, mashed sweet potato squash, winter cooked beans, peas, lentils (add 1 meat exchange) 	1 slice 1 oz 1 (6") 4-6 (3/4 oz) 1/2 cup 3/4 cup 1/2 cup 3 Tbsp 1/2 cup 1/3 cup 1/2 cup 3 cups 1 (3 oz) 1/2 cup 1/3 cup 1/2 cup	1 slice 30 g 1 (15 cm) 4-6 (20 g) 125 ml 175 ml 125 ml 45 ml 125 ml 80 ml 125 ml 720 ml 1 (85 g) 125 ml 80 ml 250 ml 125 ml	 Most starches are good source of B vitamins Choose whole grain foods such as 'all natural, 100% whole wheat' bread, pasta, tortillas, and brown rice, etc. for nutrients and fiber. Combine beans (starch & meat) with grains (starch) for their complimentary proteins and fiber Combine grains (starch) with milk (milk) or cheese (meat) to compliment proteins. Add additional fat exchanges for starchy foods prepared with fat.
Fruit	60 C	Calories	15 g Carb.
 fresh fruit melon (cubes) canned fruit dried fruit fruit juice 	1 small 12 oz (1 cup) 1/2 cup 1/4 cup 1/2 cup	1 small 360 g (250 ml) 125 ml 60 ml 125 ml	 Choose whole fruits for fiber Choose citrus fruits such as oranges, grapefruits, or tangerines
Meat & Substitutes	35-145	Calories	7 g Protein, 0-13 g Fat
 meat, poultry, fish cheese cottage cheese egg peanut butter tofu cooked beans, peas, lentils (add 1 starch) 	1 oz 1 oz 1/4 cup 1 1.5 Tbsp 4 oz (1/2 cup) 1/2 cup	30 g 30 g 60 ml 1 22 ml 115 g (125 ml) 125 ml	 Choose leaner meats such as chicken, fish, and lean cuts of meat; add fat exchange for higher fat meats and substitutes. Limit frying or adding fat. Have 2 servings of fish per week for Omega 3 fatty acid.
Milk	80-150) Calories	12 g Carb., 8 g Protein, 0-8 g Fat
milkyogurt	1 cup 1 cup	250 ml 250 ml	Consider lower fat milks; add fat exchange for higher fat milk.

Example of basic knowledge of renal nutrition & diet







(Source: Your Renal Guidebook to healthy cooking. NKF Khoo Teck Puat Hospital, Malaysia)

PROTEIN

When iddneys fall, they are unable to filter protein waste products such as urea from body or an abnormally high amount of protein in urine, resulting in foamy or soapy urine.

Functions of protein:

· Essential for tissue growth, repair and maintenance

· Fight infections by boosting the immune system

Pre-Dialysis

Require LESS protein to prevent the risk of waste products building up to a high level.

> nmended Amount of Protein Intoke per day 0.6 - 0.8g/kg body weight

> > e.q. : A person who weighs 50kg 0.6 x 50kg = 30g 0.8 x 50kg = 40g 30-40g/day

Your recommended intake: _g/day Dialysis

Require MORE protein to replace the lost protein during dialysis.

nmended Amount of Protein Intoles per day:

e.g. : A person who weighs 50kg

Your recommended intake: _____g/day

POTASSIUM

When kidneys fall, potassium accumulates in blood. High levels of potassium in the blood cause muscles weakness, abnormal heartbeat, leading to heart failure.

Functions of potassium:

- Keeps a normal water balance
- . Keeps the heart beating steadily . Conducts nerve impulse and muscle contraction

Pre-Dialysis
UNRESTRICTED

unless there is abnormally high level of potassium in blood.

Recommended Amount of Potassium Intake per day:

Tip to increase potassium levet: Eat a variety of vegetable and fruits daily.

Tips to control potassium level:

- AVOID high potassium foods, COMSUME foods that contain low to moderate level of potassium instead.
- . Soak vegetables in a large volume of water and drain to allow potassium to leach out
- Cut or slice into smaller pieces when soaking in water to increase potassium loss
- . Drain canned fruits and vegetables before eating
- . Control the intake of low-potassium food

Protein requirement should

contain > 50 % of High

Biological (Good quality)

Value, such as: egg, meat,

chicken, fish

1.2 - 1.3g/kg body weight

1.2 x 50kg = 60g 1.3 x 50kg = 65g 60-66g/day

SODIUM

PHOSPHATE

Functions of phosphate:

Critical for bone formation

bone disease.

causes calcium to be drawn out from the bones, causing

them to become weak and brittle. These damages may

. Need for healthy strong bones, along with calcium

. Essential buffer used in the excretion of acid by the kidney

Recommended Amount of Phosphorus Intake per day:

800 - 1000mg

lead to other problems such as muscle aches, pain and

When kidneys fail, the ability to excrete sodium is reduced. High levels of sodium result in retention of water and hence increase blood pressure, leading to edema (swelling) and excessive thirst. This affects the fluid restriction of patients with CKD.

Dialysis

When kidneys fall, phosphorous accumulates and Tips to control phosphate level:

Pre-Dialysis

Recommended Amount of Sodium Intake per day:

Tips to limit sodium intake:

. Buy fresh foods, limit intake of processed food (e.g. hotdog, ham, instant noodles)

· Limit foods high in phosphate such as processed

. Avoid foods high in phosphate such as chocolate,

Take phosphate binders with meals and snacks.

Phosphate binders bind with the phosphorus in

your intestine. The bound phosphorus will pass in

meats, milk and other dairy products

dried fruits, nuts

- . Use spices, herbs, and sodium-free seasonings in
- · Rinse canned vegetables, beans, meats, and fish with water before consumption
- Look out for Healthier Choice Symbol (HCS)

FLUID INTAKE

When kidneys fall, they may not produce as much urine as before, and your body may become overloaded with fluid. This causes fluid retention in the body.



Important Note: Do not limit fluids unnecessarily because this may cause damage to the kidney when you are on fluid restriction.

Symptoms of fluid re • Swelling of the legs, hands a

- Shortness of breath
- Increase in blood pressure

Pre-Dialysis

Unrestricted with normal urine output Normal Urine Output:

800 - 2000ml

Tips to limit fluid int

- . Moisten the dry mouth by s
- . Limit salty food to reduce th Drink from a smaller cup
- Measure and divide the flui

POTASSIUM

Sources	Low (< 200mg)	Medium (200mg - 350mg)	High (> 350mg)
	Bean sprout	Asparagus	Bamboo shoot
Vegetables	Bitter gourd	Carrot	• Beans
regemente	Brinjal	 Cauliflower 	Beets
*1 Serve	Capsicum	Celery	Broccoli
- 100g (3/4 cup) cooked	Cucumber	Chilli	 Chick peas
- 100g raw nonleafy	French bean	Chinese cabbage	• Kale
- 150g raw leafy	Frozen vegetables	Chives	• Legumes
	Hairy gourd	Ladies finger	Lotus root
	Kang kung	• Leeks	Mushroom
A	• Lettuce	Lentils	• Peanut
	Long bean	• Peas	Potato
	Onion	Pumpkin	Seaweed
- Artistantina	Peas, green	Snow peas	Spinach
A CONTRACTOR OF THE PARTY OF TH	Spring onion	Sweet Corns	Sweet potato
	Tempeh	Tomato	Water chestnut
1 de	Zucchini		• Yarn
	Low (< 150mg)	Medium (150mg - 250mg)	High (> 250mg)

• Watermelan (I wedge)

- · Apple (Lynn) · Cherry (to medium) • Blueberries (1/2 cup) • Chiku (1% medium) Canned fruits (vz cup) · Duku (m medien) Grapefruit (v2 medum)
- · Cronberries room Dragonfruit (v2 true) Durian (2 seeds)
- · Grapes (t) mol Orange (I small) · Guava (v2 tut) · Papava (I veries) Lemon (I small)
- · Lime (I whole) . Longon (1) medium) Mangosteen (4 medium) · Pear ((small) · Pineapple ((wedge))
- Peach (I medium) • Plum (2 snot) Pornello (3 segments) • Raspberries (1 cup) • Strawberries (Loup)
- · Apricols (4 worl) · Avocado (I medium) Banana (1 smoll) . Custord goole (I medium)
- Dates (2 pieces) . Langsat (10 medium) Dried fruits (20g) · Lychee (& medium) · Ficts (2 small) · Honeydew (I stos) · Jackfruit (2 seeds)
 - · Klwi () medium) Manao (v2 medium) Pomegranate (vz medium) · Prunes (4 pieces)
 - Rockmelon (I ske) • Tangerines (I medium) • Soursop (1 sloe)

PHOSPHATE

Low Phosphate	High Phosphate
All fruits & vegetables are low in phosphorous	
Egg white Roule Mect Poultry	All sort of sectood e.g. crayfish, cyster Sacrines Anchorkes (Blan bills) Organ med: e.g. liver, intestine Bone-based soups e.g. chideen feet and park bone Been products e.g. all forms of nuts, seeds, bean soup
Low fot cheese Rice milk Sherbet or popsicle Non-daily creamer Pudding or custord made with non-daily creamer Cream soups made with water	Cheese Cottage cheese Custard Ioa cream Milk Pudding Cream soups made with milk Yoghut
Non-cola (toward drive) Lemon-lime sodd Rice milk, unfortified Non-daily creamer (vayadex te views the letter tem of "steet")	Ale Beer Chocolote drinis Coco Coco Dark colos Malted drinis e.g. Millo, Horlides
Non-bran cereal, fice cereals, or com floles White bread (-Ne-twe) White fice Posta Light solution for popoorn Honey Jam or jelly Jam or jelly	Bran cereals Brawer's yeast Nats Seeds Whota open Whole grain products e.g. brown riae, wholemed bread, wholemed pasta Caramels
	All fruits & vegetables are low in phosphorous • Egg white • Fish • Meot • Poultry • Low fat cheese • Rice milk • Sherbet or popsicle • Non-dairy reamer • Pudding or custand made with non-dairy creamer • Pudding or custand made with non-dairy creamer • Cream soups mode with water • Non-boar soups mode with water • Non-boar creamer or yearlier is when the letter law of "river") • Non-boar creamed, rice careads, or com floides • White broad (spi-flow) • White I would be sold (spi-flow) • Honey • Honey

SODIUM Low Sodium

High Sodium

Sources	Low Sodium	High Sodium
Vegetables & Fruits	Any fresh fruits Any fresh vegetables Fiscen vegetables visual make many Canned vegetables that are fow in sodium or have no solt added Low sodium wegetable julion Fiscen or dried fruit (preserved) Canned fruit (passer is water at the play	Conned vegetables e.g. picked olives and pickles
Bread, Cereals and Grains	Rice or pasta Unsalted paparen	Instant noodles Ready-to-eat meals Popcoms
Meat, Nuts and Beans	Fish or shelfsh Chicken or tutely bracit without skin Lacen dust of beef or pook Unsalted nuts and seeds Place and bears Commed bears babeled 'no salt added' or 'low sodium' Eggs Eggs	Hotdags or sourcages Hom Conned meats e.g. function meats comed beef Dried fish Sattled nust and seeds Conned beans Conned beans
Dairy Products	Low- or reduced-sodium cheese	• Cheese
Dressing, Oils and Condiments	Unsolitad mangarine and spreads with no trans lot. Vegetable oil e.g. canala, oilive, peanul, or sesame Sodum-fiese, light myomrable and solaid designs a low-sodium soy souce low-sodium broth Iow-sodium oyster souce Vinegar Vinegar	Margarine and butter Margarine and solad dressings Soy sauce Broth Cyster souce Tomoto sauce Tomoto sauce It is souce Marinades Marinades
Seasonings	Herbs, spices, or salt-free seasoning blends Chopped vegetables e.g. garlic, onions and peppers Lemons and limes	• Soft

What do I need to know? My level is high/normal/low?

What do I need to do? My diet target should be

BMI (? Under / overweight)	Calories	X Kcal/day
Nutritional assessment Protein / Albumin	Protein	X portions/day
	Carbohydrates	X portions/day
Lipids (Chol/Tg)	Fat	? standard / low
	Fibre	? standard / high
	Vegetable	X portions/day
	Fruit	X portions/day
FBG/HA1C (Blood sugar control)	Glucose	
Sodium	Sodium	? standard / low
Potassium	Potassium	? standard / low / high
Phosphorous	Phosphorous	? standard / low / high

Restrictive renal diet is a barrier to living well

- Can it be less restrictive?
- Can they eat better (well), if they eat smart(er)?
- If so, how to do so?

- Can they get the information?
- Can they <u>understand</u> the information?
- Can they <u>use</u> the information (day to day)?

From diet restriction

→ Positive eating

To eat smart, eat well Bring the joy back into eating

Enjoy recipes from around from world.



Home cooking

- Family meals (not just cooking for one person)
 - Kidney and health-friendly food
 - Co-design, co-produce with patients and healthcare professionals
 - Simple, easy recipes to understand and use
 - Tips on how to eat smart and eat well
 - Use of exchanges (protein, carbohydrates)
 - Use of indicators (low/high level)



The recipe is a guide (options)

<u>how</u> to select and prepare your food, according to your prescribed allowance to set up your meal plan for the day/week.



The recipe is "generic" which can be modified to meet the allowance/meal plan of the patient by

- varying the **protein** content (portion size to be consumed)
 - be mindful of the caloric content and adjust accordingly
 - be mindful of the carbohydrate content (if diabetic)
 - if necessary, a focus on and modify the **ingredients** with **sodium, potassium, and phosphorous** content.

May not necessary to have a different recipe for different stages of kidney failure, or renal replacement therapy.

A recipe can be modified accordingly (with tips).

The recipe is <u>a guide</u> on the protein, sodium, potassium, and phosphorous content of one serving of the meal.

The indicator "Low" or "High" is only a relative indicator (not absolute), must be considered in the context of

- the patient's condition (body weight, biochemistry),
 - stage of kidney failure
 - on which type of renal replacement therapy
 - meal plan for the day/week.



TIPS

(Help them to fish, rather than give them the fish)

 How to modify the recipe (ingredient of different levels of nutrient requirement)

• Cooking skill
Grill, roast, steam, fry
Slow cooking, Air-fried
Use of herbs and seasoning (without salt)

KEEP IT SIMPLE, UNDERSTANDABLE, PRACTICAL





Why? What? How?





Collections of international recipes





















Curren

About ISRNM Kidney-Friendly Recipes from Around the World

Knowledge Gateway

Congress

Patients' Corner



Patients' Corner

Kidney-Friendly Recipes

Sponsored Recipes



ibership

Visual Aids for Healthy Living

Patients' Voice



NTERNATIO



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All Posts

recipes for your personalized eating plan.

Diet and Nutrition are essential for healthy eating and living in people living with chronic kidney disease. In

this section, you can find useful resources of kidneyfriendly recipes and cooking tips from around the

world. We welcome you to share your recipes and cooking tips for a healthy kidney diet, as well as your

comments. Feel free to email your recipes to us, we

Please work with your dietitian on how to use these

may post it up in our blog posts!

Europe

North America

South America

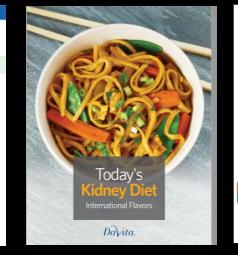


Now, more than ever, fighting waste is a challenge that the world must deal with. It's an issue concerning each and every one of us from

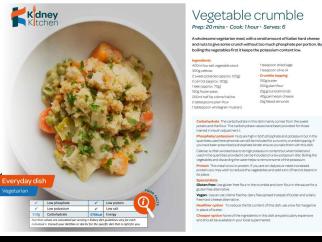








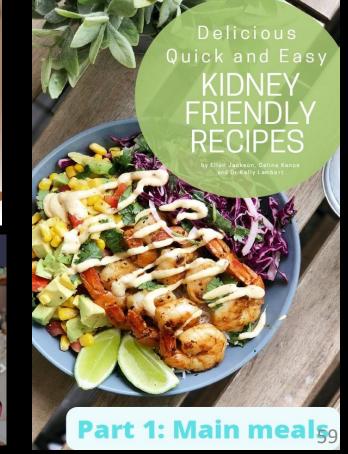
Renal





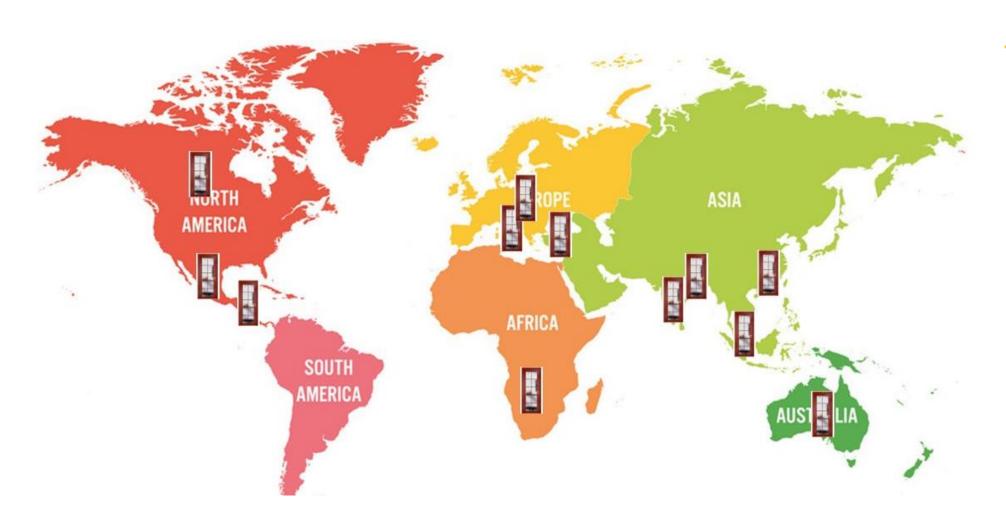






Recipes in a structured format, easy to understand and to use

Kitchen door to





Australia Bangladesh Canada (TBC) Guatemala Hong Kong Hungary India Italy Malaysia Mexico South Africa Türkiye

How to present recipes that can be understood and used

Serving size: 300 g		% Daily
		Value
Calories (kcal)	400	20%
Carbohydrate (g)	47	16%
Protein (g)	27	
Fat (g)	12	18%
Cholesterol (mg)	125	42%
Fiber (g)	4	16%
Sodium (mg)	370	17%
Potassium (mg)	368	
Phosphate (mg)	160	

Salt and Sodium

Confusing terminology!!!!!!

- 5g of salt 2000 mg (sodium)
- a teaspoon of salt (Sodium choloride)

2300 mg sodium 100 mmol of sodium 5.8 gm (5800 mg) of salt

Can patients understand and use the information (numbers)? Does a patient add up the actual values for a day's intake?

How to present recipes that can be understood and used

Currently, many recipe book / information provided

- Indication of the nutrient level <u>high / low</u>
- Actual value may also be provided
- Use of "exchanges" for protein, carbohydrates
- Tips on how to use the recipe



Old Fashioned Canadian Stew

Diet Type High Protein | Low Phosphorus | Low Potassium Meal Type Beef | Family Friendly | Soups & stews

Adapted from https://www.ricardocuisine.com

Photo by Melanie Liu











Here's a low potassium version of the classic Canadian stew.

Ingredients

- 1 slice 1.10 lbs (500 g) boneless beef blade, fat removed
- 2 tablespoons (30 ml) olive oil
- 1 cup onion, sliced
- 6 cloves garlic, peeled
- 1 tablespoon (15 ml) whole-grain mustard
- 2 cups turnip, cubed
- 1 cup carrots, sliced
- · 4 cups cabbage, shredded
- · 4 cups low sodium chicken or beef broth

Directions

In a skillet, brown the meat on both sides in the oil. Place in the slow cooker. Set aside.

In the same skillet, brown the onion and garlic.

Deglaze with 1 cup low sodium chicken or beef broth and add the mustard. Pour into the slow cooker and add the remaining ingredients.

Cover and cook on low for about 8 hours or until the meat is fork-tender. Adjust the seasoning.

Nutrient Analysis

Calories: 185 KCal

Protein: 17 g

Carbohydrates: 11 g

Fibre: 2.3 g

Total Fat: 8.7 g

Sodium: 153 mg

Phosphorus: 184 mg

Potassium: 542 mg

Renal Diet Nutrient Analysis

Servings per recipe: 8

Serving size: 11/4 cup

Renal and Diabetic Exchanges

2 protein, 2 vegetables

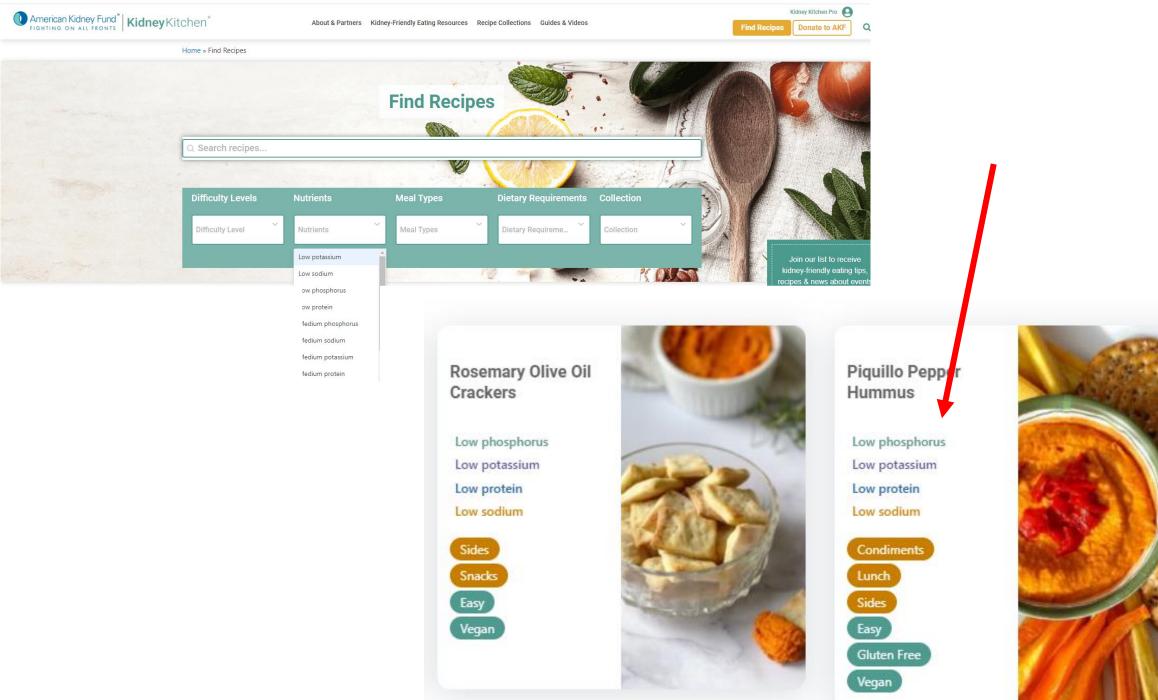
What is one exchange?

1 Protein Choice = 1oz of meat or 7g of dietary protein

1 Starch Choice = about 15g of carbohydrates

1 Fruit or Vegetable Choice = 1/2 cup

1 Milk Choice = ½ cup





Vegetable crumble

Prep: 20 mins · Cook: 1 hour · Serves: 6

A wholesome vegetarian meal, with a small amount of Italian hard cheese and nuts to give some crunch without too much phosphate per portion. By boiling the vegetables first it keeps the potassium content low.

Ingredients

400ml low salt vegetable stock

300g celeriac

2 sweet potatoes (approx. 120g)

2 carrots (approx. 120g)

1 leek (approx. 70g)

150g frozen peas

200ml half fat crème fraîche

2 tablespoons plain flour

1 tablespoon wholegrain mustard

1 teaspoon dried sage

1 teaspoon olive oil

Crumble topping

150g butter

200g plain flour

25g ground almonds

Luggi odi id ali Horida

40g parmesan cheese

25g flaked almonds

Carbohydrate The carbohydrate in this dish mainly comes from the sweet potato and the flour. The carbohydrate values have been provided for those trained in insulin adjustment.t.

Phosphate/ potassium Nuts are high in both phosphate and potassium but in the quantities used here almonds can still be included for a crunchy crumble topping. If you have been prescribed a phosphate binder ensure you take them with this dish.

Celeriac is often avoided due to its high potassium content but when boiled and used in the quantities provided it can be included on a low potassium diet. Boiling the vegetables and discarding the water helps to remove some of the potassium.

Protein This meal is low in protein. If you are on dialysis or need increased protein you may wish to reduce the vegetables and add a tin of haricot beans in its place.

Special diets

Gluten free: Use gluten free flour in the crumble and corn flour in the sauce for a gluten free alternative.

Vegan: Use an oat crême fraiche, dairy free spread instead of butter and a dairy free hard cheese alternative.

Healthier option To reduce the fat content of this dish use a low fat margarine in place of butter.

Cheaper option None of the ingredients in this dish are particularly expensive and should be available in your local supermarket.



Eggplant and sweet potato curry

Ingredients:

- · 2 medium onions, peeled and sliced
- 1 medium eggplant, chopped into 2cm pieces
- 1 medium sweet potato
- 350g of Korma Curry Sauce (Mild)
- · 4 serves of white rice

Instructions:

- 1. Simmer onion in a little water for just a minute
- 2. Remove from pan and set aside
- 3. In a non stick frying pan, fry eggplant until evenly browned
- Add onions and sweet potato to pan with sweet potato and korma sauce
- 5. Fill half the empty jar with water and add to pan.
- 6. Simmer for 20-30minutes until the potato and eggplant are tender
- 7. Serve with rice and pappadums.



Serves

Nutrient Values Per Serve:

Protein (total): 7g

Protein rich food exchange: 0

Carbohydrate: **57g**

Carbohydrate Exchange: 4

Sodium: **467mg**Potassium: **641mg**Phosphate: **147mg**

Suitable for:

- ✓ Low sodium
- √ Low phosphorous
- ✓ Low potassium
- Low protein
- Diabetic diet



soy sauce, sesame oil and five-spice powder.

Pre-dialysis

Ingredients	Quantity
Dory fish fillet	180g
Low sodium soy sauce	1½ tablespoon
Ginger, finely sliced	1/4 small ginger (11g)
Sugar	½ tablespoon
Sesame oil	½ tablespoon
Five-spice powder	2 pinches



Increase quantity of dory fish fillet to 270g

Instructions

- 1. Seasoning: Mix soy sauce, sugar, and five-spice powder in a bowl, and set aside.
- 2. Place the fish on a plate suitable for steaming. Drizzle 1 tablespoon of the seasoning mixture over the fish and scatter with ginger. Cover and refrigerate for 15 minutes.
- 3. Steam the fish for 8 minutes, or until the fish is cooked. Meanwhile, heat sesame oil and the remaining sauce in a small saucepan over medium heat.
- 4. Pour the sauce over the steamed fish.

Pre-dialysis Nutrition Information Serving Size: 70g

77 kcal Energy.... Protein. 10.3 g 2.8 g Total Fat. - Saturated Fat. 0.5 g 28 mg - Cholesterol. 2.7 g Carbohydrate.. - Dietary Fibre.. 0.1 g Potassium. 264 mg Phosphorous. 134 mg 303 mg

Dialysis **Nutrition Information** Serving Size: 90g

Energy	99 kcal	
Protein	15.2 g	
Total Fat	3.0 g	
- Saturated Fat	0.4 g	
- Cholesterol	43 mg	
Carbohydrate	2.8 g	
- Dietary Fibre	0.1 g	
Potassium	383 mg	
Phosphorous	198 mg	
Sodium	323 mg	

To check for doneness, use a butter knife to cut the fish. If it cuts through the bottom of the plate, the fish is well cooked.

A recipe with tips to modify the protein content

for **Pre-dialysis** to on Dialysis

Criteria of High/Low

A wide variation in the criteria used by different recipe books for different settings.

No international standard



Kidney Community Kitchen Tagging Guidelines

Tagging diet type is "easiest" using renal diet exchanges to calculate whether or not something qualifies <u>e.g.</u> as low sodium.

1			
		1	
	₩		

Food Group	Nutrient Breakdown						
1000 Cloup		Nutrient Diedkuowii					
	Protein (g)	Fat (g)	Carbohydrates (g)	Potassium (mg)	Phosphorus (mg)	Sodium (mg)	
Protein choice	7	4	0	100	70	25	
Starch Choice	2	0	15	40	50	80	
Milk Choice	4	variable	6	195	125	80	
Fruit Choice	0.5	0	10	200-240	15	0	
Vegetable Choice	2	0	6	200-240	30	15	

1 Protein Choice = 1oz of meat or 7g of dietary protein

1 Starch Choice = about 15g of carbohydrates

1 Fruit or Vegetable Choice = ½ cup

1 Milk Choice = ½ cup

For example, if a recipe includes **2 vegetable choices**, it will count as:

■ Low K: < 420mg of K per serving (2x220)

Low PO4: < 60mg of PO4 per serving (2x30)

Low Na: < 30mg of Na per serving (2x15)

A mixed recipe that included 3 protein choices, 1 fruit and one vegetable choice would count as:

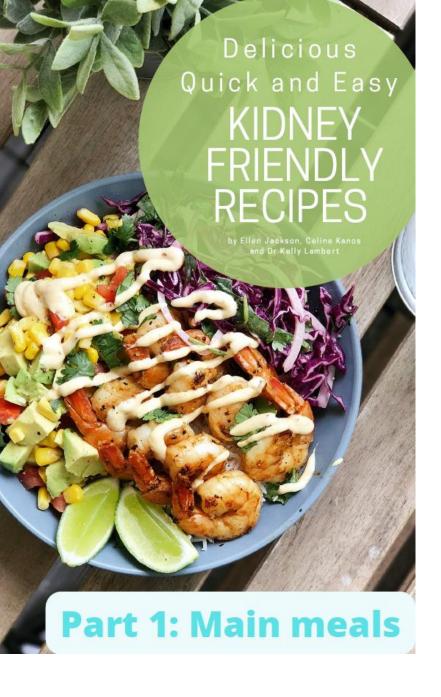
■ **High Protein:** > 23.5g of protein per serving (3x7 + .5 + 2)

Low K: < 740mg of K per serving (3x100+220+220)

Low PO4: < 255mg of PO4 per serving (3x70+15+30)</p>

Low Na: < 90mg of Na per serving (3x25+0+15)</p>

For a diabetic diet you can use "carb choices" to allow the patient to incorporate into their diet. Basically, it means that you look at total carbs, subtract the fiber and every 15g is one carb choice. carbs – fiber= 15g per carb choice



Each recipe in this book aims to provide less than each nutrient benchmark per serve:

Meal	Sodium mg	Potassium mg	Phosphate (mg)	Protein (grams)
	(mmol)	(mmol)		
Main meal	690 (30mmol)	780 (20mmol)	<350mg	<20g
Light meal	460 (20 mmol)	585 (15mmol)	<250mg	, <20g
Snacks	230mg (10mmol)	195mg (5mmol)	<50mg	<5g

Nutrient Values Per Serve:

Protein (total): 4g

Protein rich food exchange: 0

Carbohydrate: 5g

Carbohydrate Exchange: 0.3

Sodium: 45mg

Potassium: 220mg

Phosphate: 66mg

Suitable for:

- ✓ I Low sodium
- ✓ Low phosphorous
- ✓ Low potassium
- ✓ Low protein
- ✓ Diabetic diet

Nutrient recommendations, stages 3,4 and 5 (not on dialysis) and kidney failure

Protein recommendations by stage

Nutrient	Value
Sodium	1500 mg or less
Potassium	2000 mg or less
Phosphorus	800-1000 mg
Protein	See below

Daily Protein Recommendations	Women	Men	
Stages 1 and 2	46 g (6-7 oz)	56 g (8 oz)	
Stages 3, 4 and 5 (not on dialysis)	35-42 g (5-6 oz)	42-56 g (6-8 oz)	
Kidney failure (on dialysis)	2-78 g (10-11 oz)	84-93 g (12-13 oz)	

These are general guidelines from KDOQI. Individual needs may vary. Please check with your doctor or dietitian.

How we calculate low, medium and high nutrient values in our recipes:

Nutrient	Low (per serving)	Medium (per serving)	High (per serving)
Sodium	140 mg or less	141 mg - 399 mg	400 mg or more
Potassium	300 mg or less	301 mg - 599 mg	600 mg or more
Phosphorus	150 mg or less	151 mg - 299 mg	300 mg or more
Protein	8 g or less	9 g - 20 gm	21 g or more

Key: g = gram(s) mg = milligram(s) oz = ounce(s)

Per serving (main meal)

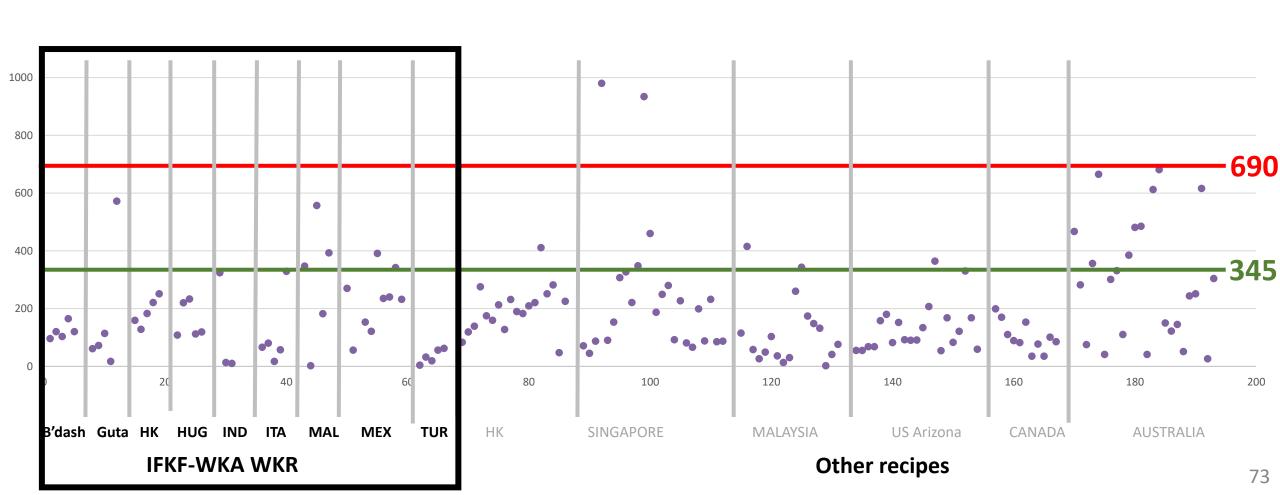
	Low	High
Na	<345 mg	>690 mg
K	<390 mg	>780 mg
PO4	<175 mg	>350 mg

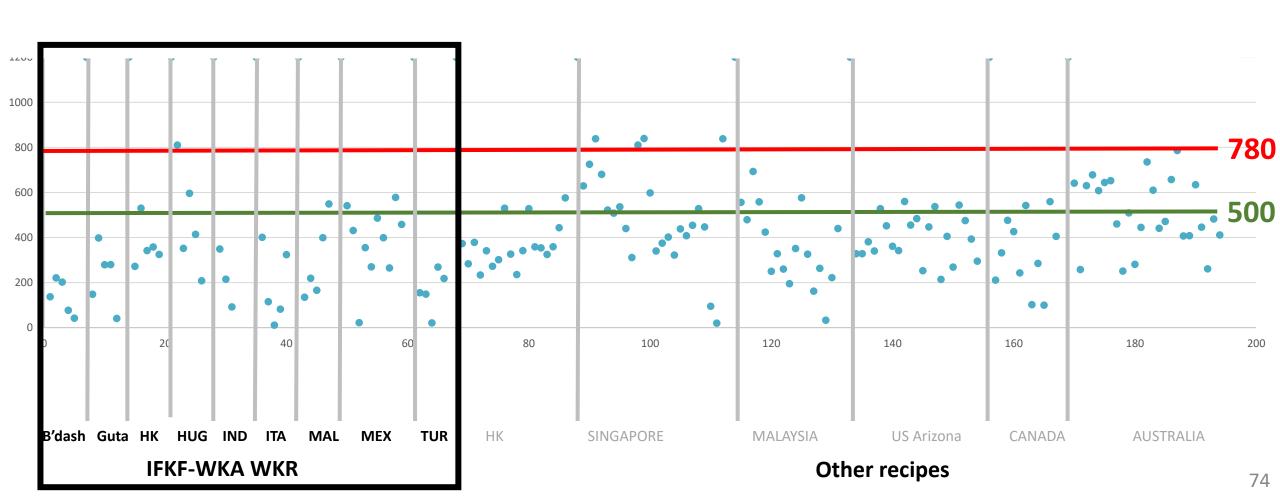
	Canadian	Hungary	American		Australia	AKF
Low Na	<90 mg	<150 mg	<140 mg	High Na	>690 mg	>400 mg
Low K	<740 mg	<500 mg	<300 mg	High K	>780 mg	>600 mg
Low PO4	<255 mg	<200 mg	<150 mg	High PO4	>350 mg	>300 mg

Set at ½ of the high level

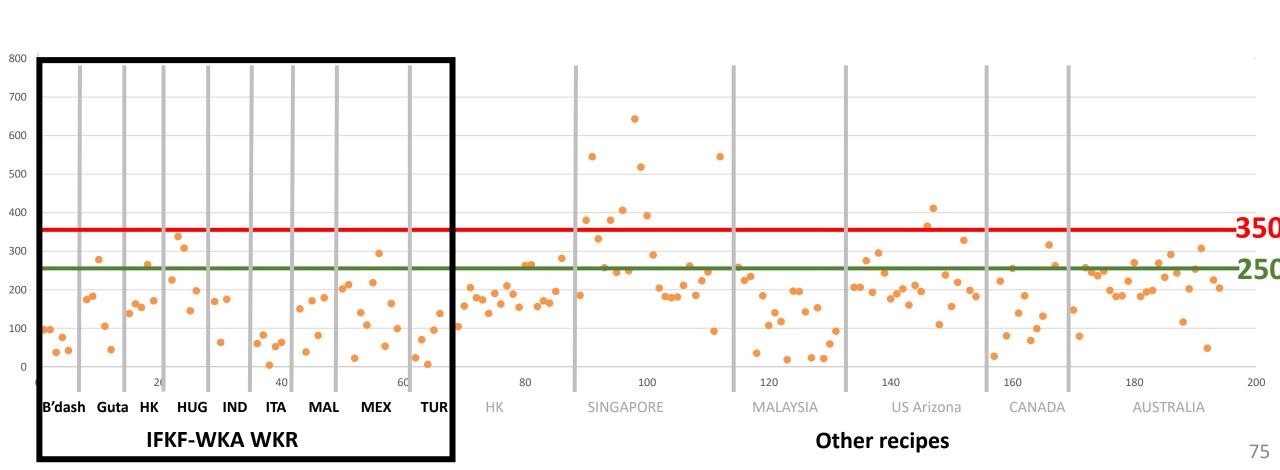
Adopt the Australian approach

^{*}An interim decision by the Working group after due consideration





Phosphorous (mg) per serving Recipes of a mix of main meal, light meal and snacks







EACH SERVING PORTION

Protein 1 exchange

Carbohydrates 0.5 exchange

Low sodium

Low potassium*

Low Phosphorus*

Eggplant and tofu with miso



HONG KONG, CHINA

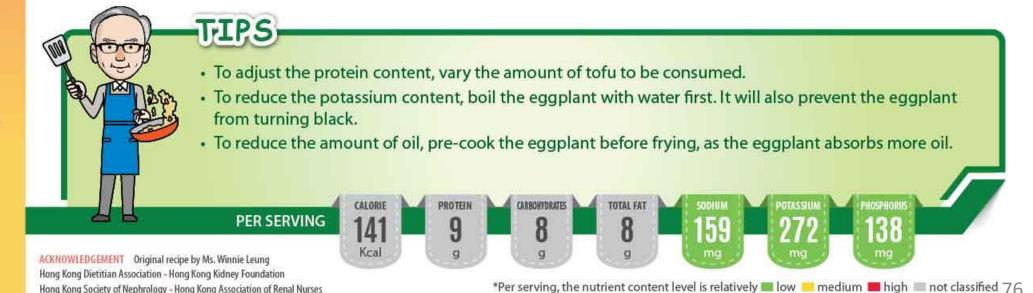
INGREDIENTS (SERVE 2)

- 2 eggplant (~120g each)
- 400g of firm tofu
- 1 tbsp of miso
- 1 tsp of sugar
- 2 tsp of Japan sake
- 2 tbsp of minced garlic
- 1 tbsp of minced ginger
- Chopped spring onion
- Cornstarch
- 1 tbsp of oil
- 1 tbsp of white vinegar

Hong Kong Society of Nephrology - Hong Kong Association of Renal Nurses

PREPARATION

- Wash and cut the eggplant into pieces.
- Ø Boil a pot of water over heat, use a sieve to gently press the eggplant into the water, continue to pressure cook for about 4 minutes, then remove the eggplant and rinse with cold water to cool down.
- Ory the tofu with kitchen paper, place it in a bowl and crush it with a fork.
- 4 Heat a tablespoon of oil in a wok, fry minced ginger and minced garlic until fragrant, then add in chopped tofu and Stir well.
- 6 Add wine, miso and sugar and stir well. Add eggplant and cook on low heat for 5 minutes. If the sauce is too thin, you can add cornstarch water to thicken the gravy, sprinkle with chopped green onion, and serve.



World Kidney Recipes





WORLD KIDNEY RECIPES





LONG LIVE KIDNEYS AND PATIENT

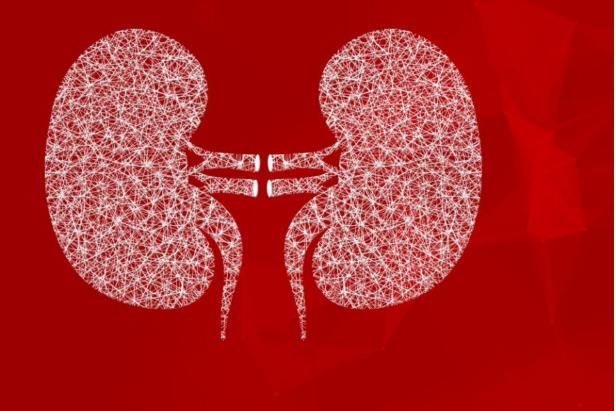




Welcome to the

International Federation of Kidney Foundations - World Kidney Alliance

- . Better kidney health for all.
- . Optimal care for people affected with Kidney Disease or Kidney Failure.













World Kidney Recipes





<u>Australia</u>

Bangladesh

Canada (TBC)

<u>Guatemala</u>

Hong Kong

Hungary

<u>India</u>

<u>Italy</u>

Malaysia

Mexico

South Africa

<u>Türkiye</u>





















CHICKEN CURRY

KHICHURI

BURRITO CHAPIN

CALDO DE GALLINA

ELOTE ASADO









SAFFRON PULAO

VEGETABLE SAMOSA

ENCHILADAS GUATEMALTECAS

MARÍA COOKIES







OFKF-WKA





TOFU WITH MISO





HUNGARIAN GOULASH



PAPRIKA CHICKEN WITH NOODLES



CURD CHEESE

EGG AND BEEF IN TOMATO SAUCE

PORK CHOP WITH CORN SAUCE





AND TOFU WITH GARLIC



STIR-FRIED GROUPER FILLET AND ASPARAGUS IN XO SAUCE STUFFED CABBAGE

FRIED DOUGH













PANEER STICKS





QUINOA PULAO







LASAGNA REVISITED

LOW-PROTEIN LINGUINE PASTA WITH PESTO SAUCE

LOW-PROTEIN FOCACCIA BREAD WITH HERBS







TOMATO BRUSCHETTA WITH VEGETABLES











AONDEH-ONDEH



CHICKEN RENDANG



UNRIPE PAPAYA SALAD



NASI LEMAK







OFKF-WKA SWORLD KIDNEY RECIPES













CEVICHE DE PESCADO FISH CEVICHE

ENCHILADAS POBLANAS POBLANO ENCHILADAS

CORN DOUGH MOLE WITH PORK

STUFFED POBLANO PEPPERS

SQUASH BLOSSOM GORDITAS





المراجع المراج



FIDEOS DE CHIPOTLE **CHIPOTLE NOODLES**

MANTECADA DE NARANJA **ORANGE SHORTBREAD**

UCHEPOS (CORN TAMALES)

ZUCCHINI WITH CORN





















Anatolian style rice pilaf





FISH AND VEGETABLE PIE

PINEAPPLE CHICKEN

RICE SALAD







Green Bean W/Olive oil

Vanilla Custard

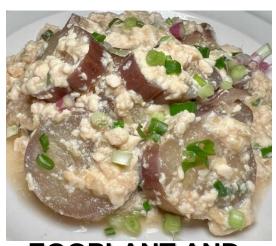








EGG AND BEEF IN TOMATO SAUCE



EGGPLANT AND TOFU WITH MISO



Pork Chop with Corn Sauce



STEAMED SCALLOPS AND TOFU WITH GARLIC



STIR-FRIED GROUPER FILLET **AND ASPARAGUS IN XO SAUCE**

THE HONG KONG KIDNEY RECIPES CO-PRODUCTION BY DIETITIANS, HEALTHCARE PROFESSIONALS (DOCTOR/NURSE) AND PATIENTS

1. A joint project of

Hong Kong Kidney Foundation
Hong Kong Dietitian Association
Hong Kong Society of Nephrology
Hong Kong Association of Renal Nurses

2. Engagement - Patient

- a. Focus group to identify what patients need, wish to know
- b. Survey on what information patients want to know, generated a list.















from a Sunday magazine (cookbook)









































4. Recipes modified by dietitians to be suitable for kidney patients



Original recipe		Modified recipe			
Pork chop	2-3 pieces (360g)	Lean Pork chop	2-3 pieces (360g)		
Corn	½ can (200g)	Fresh Corn	1 bowl (145g)		
Corn in cream sauce	½ can (200g)	Sugar free almond milk	200 mL		
Egg	1				
		Low-gluten flour	1 table spoon		
Oil	Small amount	Canola oil	2 teaspoon		
Marinade					
Light soya sauce	2 tablespoons	Light soya sauce	2 tablespoons		
Dark soya sauce	1 teaspoon				
		Rice wine	1 teaspoon		
Cornstarch	1 teaspoon	Cornstarch	1/2 teaspoon		
Sugar	1 teaspoon	Sugar	1 teaspoon		
Pepper	Moderate	Pepper	Moderate		

	Calorie	Protein	Carbohydrates	Fat	Sodium	Potassium	Phosphorus
	(Kcal)	(g)	(g)	(g)	(mg)	(mg)	(mg)
Original	662	52	47	32	1668	958	569
Modifed	195	22	11	7	220	359	245

- 5. Recipes reviewed and modified to optimize the options, add in the tips.
- 6. Recipes tested by SF Lui and others, enhancement.
- 7. To be tried by patients for feedback.

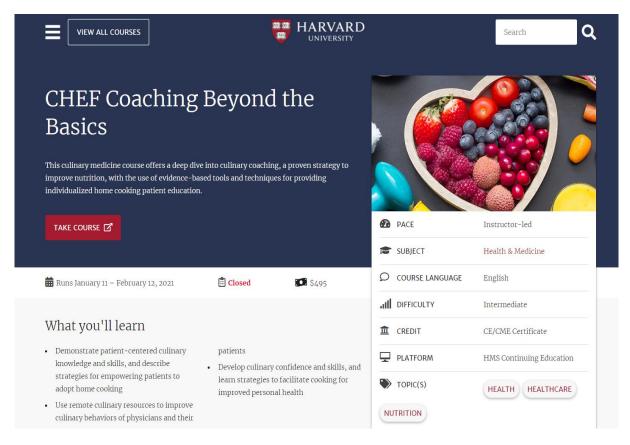
Photo by SF Lui



The fun of cooking

The joy of eating (appetizing)

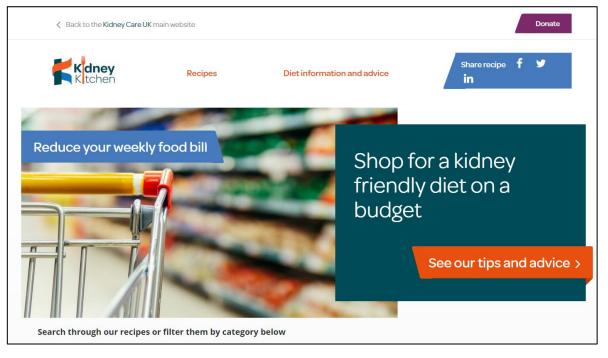




SF Lui attended these Interesting courses.

Be mindful of ...





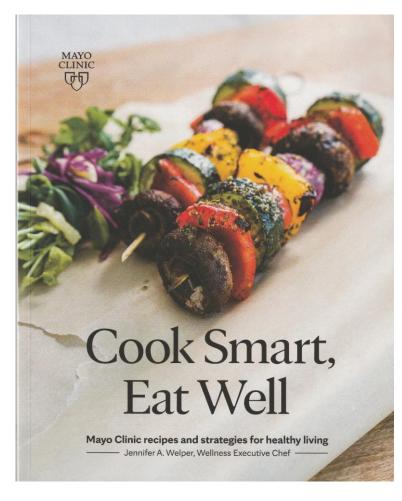


Best bets for sandwiches, burgers and more.





Healthy eating for all ...



Cook Smart, Eat Well

Mayo Clinic recipes and strategies for healthier living

Chances are, you probably know that your health is dictated to a great extent by your lifestyle habits, including your diet. The food you eat each day and the nutrients that food provides are important to your overall health and weight. How many times have you thought, "I need to eat better" or "I should learn how to cook healthier." Most people know what they need to do, they just have trouble actually doing it! Here's your chance to learn to do something really important for yourself and your family.

Cook Smart, Eat Well is about eating better without having to invest a lot of time. If you're worried a healthy diet means a boring and bland diet, think again! There's no reason that nutritious foods that are easy to prepare can't be tasty and enjoyable. Chef Jennifer Welper combines practical cooking tips with simple yet great-tasting recipes to show you how approachable and satisfying healthy eating can be.

We invite you to enjoy two free recipes. There's no reason that nutritious foods can't be easy to prepare, tasty and enjoyable. In *Cook Smart, Eat Well* you will find more than 100 original recipes

with something for every meal, including bright salads, hearty comfort foods, savory lean meats and burgers, stir-fries, and even and delicious desserts. We hope you enjoy FREE recipe #1 blackened fish tacos or FREE recipe #2 for kid-friendly baked macaroni and cheese. The cooking methods outlined in this book will also help you master basic techniques of food preparation, which you can implement with your other favorite meals.



PLANT-BASED DIET AND KIDNEY HEALTH

Eating more plant-based foods such as vegetables and grains in place of animal-based foods such as red meat may help prevent and slow the progression of chronic kidney disease, Type 2 diabetes, high blood pressure, and heart disease.





Eat smart, Eat well

WORLD KIDNEY RECIPES

- Not a one-step process to get to "Eat smart, Eat well".
 Continuous enhancement of the recipes
 - to be more user-friendly, easier to understand,
 - to provide more tips
 - to standardize the presentation (of tips)
 - to be smarter, new ways of cooking (recipe can be updated easily as it is a web-based version).
- Many interesting and challenging questions for discussion
- Accept the current version provided by the members as a Preview version for healthcare professionals to give feedback and suggestion.
- Official launch August 2022 with patient groups and healthcare professionals

INSTRUCTION AND DISCLAIMER ON THE USE OF THE WEBSITE ON WORLD KIDNEY RECIPE

This is a <u>"Preview"</u> version of the World Kidney Recipes for healthcare professionals to provide feedback and suggestion (Please email to <u>info@ifkf.org</u> or <u>luisf@luisf.org</u>). The official version will be launched in August 2022.

The recipes are only a guide to help people with kidney disease to select and prepare their meals, to provide them with ideas and options. The recipes you choose to enjoy should be guided by advice from your healthcare professionals (doctor, nurse, dietitian), and should take into account of your physical condition, blood test results, treatment, dialysis-dependent or not, and any other health conditions you may have.

The recipe has information on the protein, carbohydrates, fat, sodium, potassium, and phosphorous content of one serving of the meal. The protein and carbohydrate content are also expressed as "exchanges" (1 protein exchange is 7g, 1 carbohydrate exchange is 15g). The "Low" or "High" indicator* is only a relative indicator for one serving, and must be considered in the context of your condition - body weight, blood test results, stage of kidney failure, type of renal replacement therapy and meal plan for the day/week. The actual level per serving is also provided.

For per serving	Relatively low*	Relatively high*
Sodium	<345 mg	>690 mg
Potassium	<390 mg	>780 mg
Phosphorus	<175 mg	>350 mg





WORLD KIDNEY RECIPES

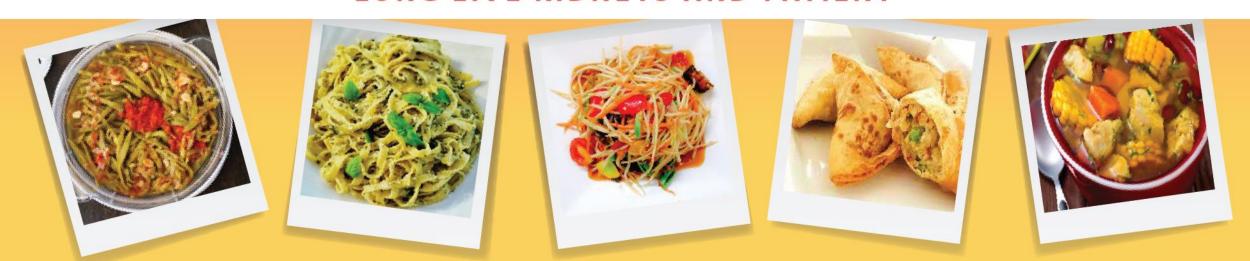






Eat Smart @ Eat well

LONG LIVE KIDNEYS AND PATIENT































One kidney world, One common goal

Better kidney health for all

Better care of patients with kidney disease for a better life







Hong Kong

- Hong Kong Kidney Foundation
- Hong Kong Dietitian Association
- Hong Kong Society of Nephrology
- Hong Kong Association of Renal Nurses
- Ms. Winnie Leung (original recipes)
- Ms. Ann Fong (graphics)

IFKF-WKA members (recipes)

Australia India

Bangladesh Italy

Canada (TBC) Malaysia

Guatemala Mexico

Hong Kong South Africa

Hungary Türkiye

Tanker Foundation, India for the IT and Secretariat support

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