

*Introduction to Resources and the **Pediatric Renal Team***

Nonnie Polderman, RD

Virtually from Vancouver, BC

March 5, 2021

I have no disclosures.



- Discuss role of the RD as part of the interdisciplinary team
- Introduce professional resources for practitioners and educational resources for patients
- Review clinical tools to aid in nutrition assessment of pediatric renal patients

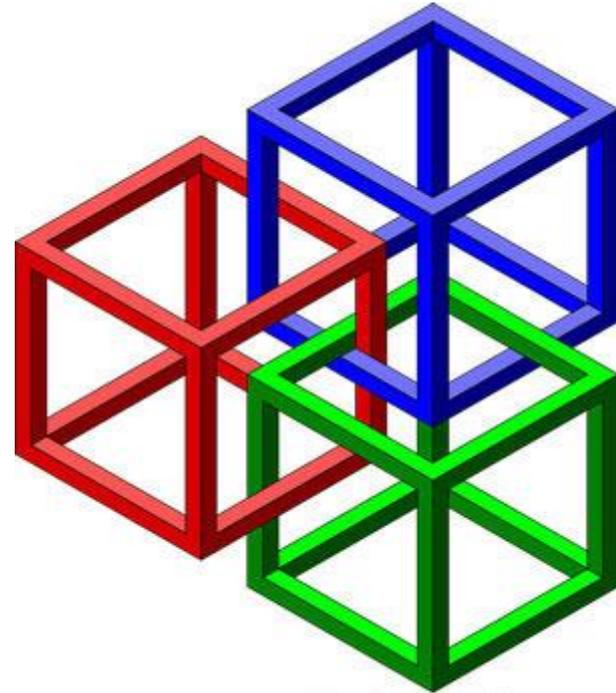


Regulatory Guidelines

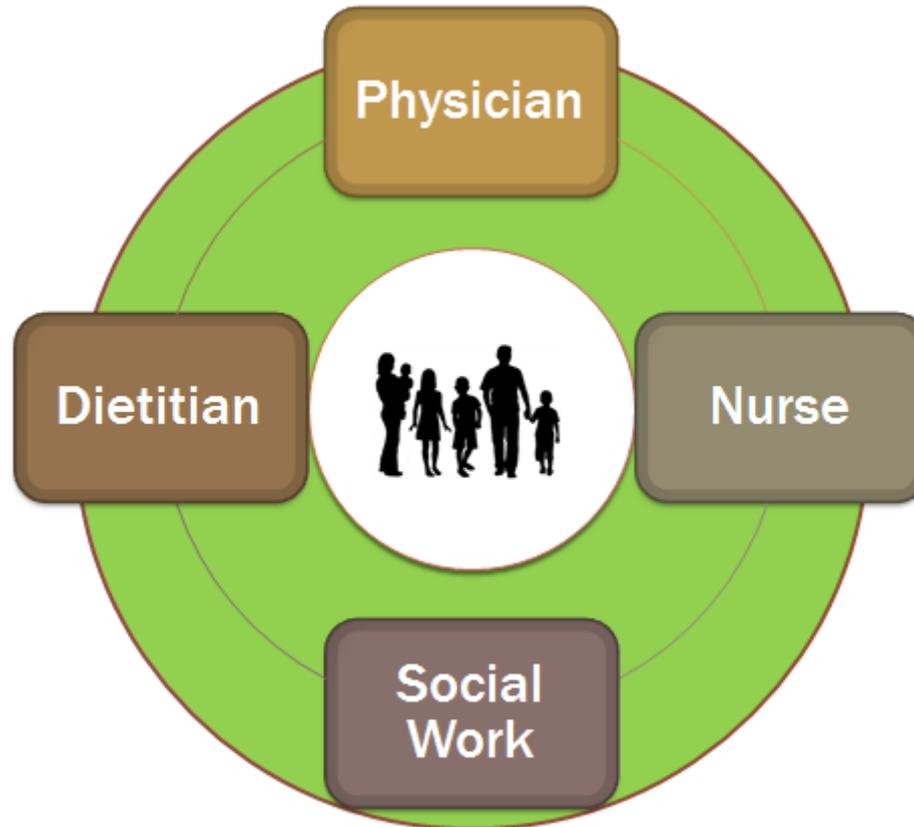
Professional Practise

Patient Resources

Knowledge/ Networking



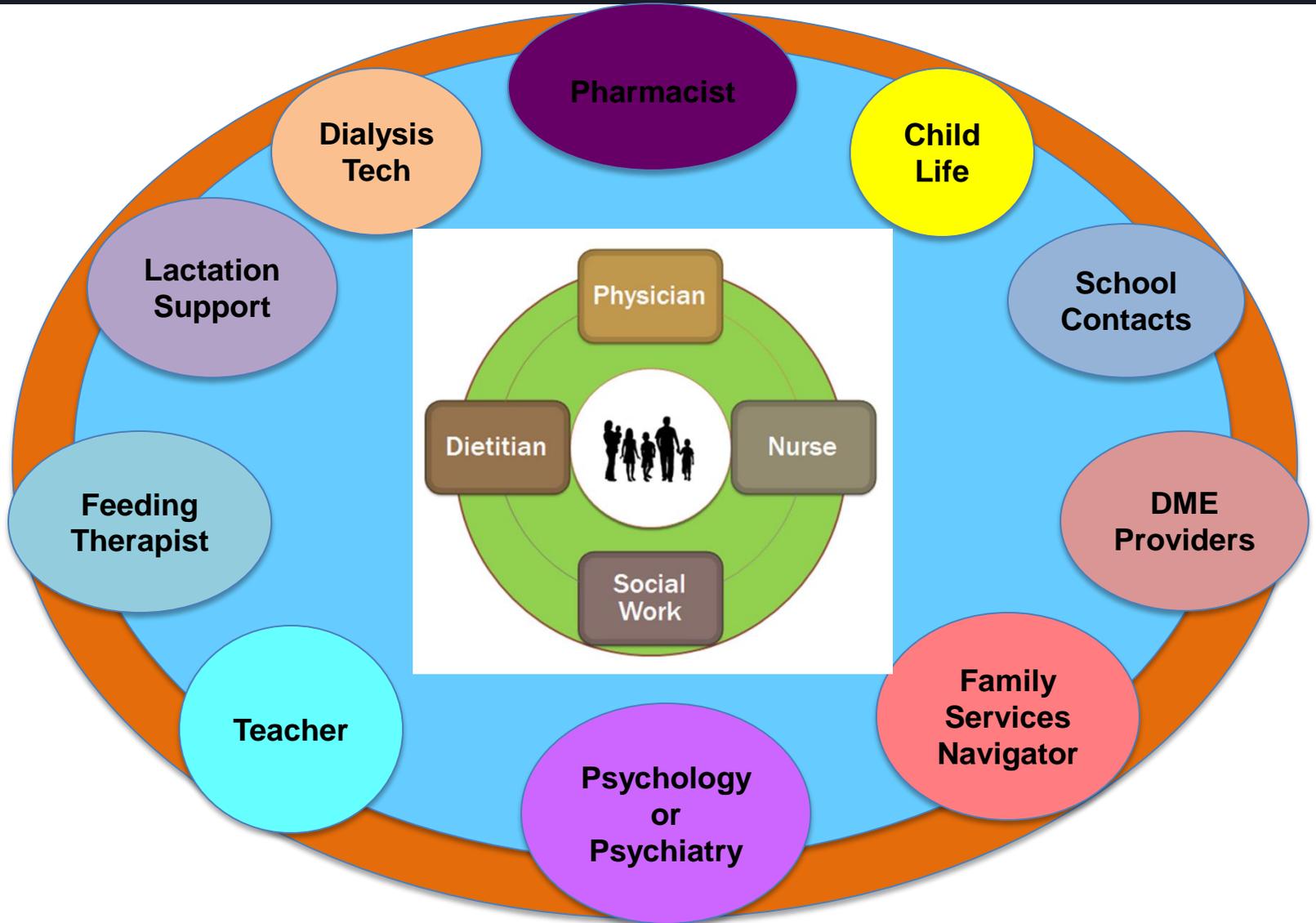
ComputerHope.com



MANDATED TEAM MEMBERS (4)

- **Patient and family – most important team member**
- Physician – attending, fellow → **ultimate responsibility for plan**
- Nurse – most frequent contact with patient
- Social Worker – quality of life & social needs of child
- Dietitian – nutrition expert & advocate

THE RENAL TEAM... EXTENDED



Center for Medicare & Medicaid Services:

Measures Assessment Tool:

What standard is measured?

How it is measured?

Specific goal of the measure

Source reference for that measure

MEASURES ASSESSMENT TOOL (MAT)					
Tag	Condition/Standard	Measure	Values	Reference	Source
484.40 Water and dialysate quality:					
V196	Water quality: test for total chlorine	Max. total chlorine (includes chloramines)	≤0.1 mg/L, daily/shift	AAM RD52	Records
V178	Water & dialysate qualified for microbiological contamination	Action / Max. bacteria – product water / dialysate Action / Max. endotoxin – product water / dialysate	50 CFU/mL, <200 CFU/mL, 1 EU/mL, <2 EU/mL (endotoxin units)		
484.60 Reuse of hemodialyzers and blood lines (only applies to facilities that reuse dialyzers &/or bloodlines)					
V336	Dialyzer effectiveness	Total cell volume (TCV) of (low) fiber dialyzers	Measure original volume/TCV Discard if after reuse <80% of original TCV	KDOQI HD Adequacy 2006 AAM RD47	Records Interview
484.80 Patient assessment: The interdisciplinary team (IDT), patient/designee, RN, MSW, RD, physician must provide each patient with an individualized & comprehensive assessment of needs					
V302	- Health status/medications	- Medication history, physical exam findings	Refer to Plan of care & QAP sections (policy) for values	Conditions for Coverage KDOQI Guidelines (see POC)	Chart Interview
V503	- Dialysis prescription	- Evaluate HD every mo; PD first mo & q 4 mo			
V504	- BP & fluid management	- Interdialytic BP & wt gain, target wt, symptoms			
V505	- Lab profile	- Monitor labs monthly & as needed			
V506	- Immunization & meds history	- Pneumococcal, hepatitis, influenza, med allergies			
V507	- Anemia (Hgb, Hct, iron stores, ESA need)	- Volume, bleeding, infection, ESA hypo-response			
V508	- Renal bone disease	- Calcium, phosphorus, PTH & medications			
V509	- Nutritional status	- Multiple elements listed			
V510	- Psychosocial needs	- Multiple elements listed			
V511	- Dialysis access type & maintenance	- Access efficacy, stasis/candidacy			
V512	- Abilities, interests, preferences, goals, desired participation in care, preferred modality & setting, expectations for outcomes	- Reason why patient does not participate in care, reason why patient is not a home dialysis candidate			
V513	- Suitability for transplant referral	- Reason why patient is not a transplant candidate			
V514	- Family & other support systems	- Composition, history, availability, level of support			
V515	- Current physical activity level & referral to vocational & physical rehabilitation	- Abilities & barriers to independent living, achieving physical activity, education & work goals			
484.90 Plan of care: The IDT must develop & implement a written, individualized comprehensive plan of care that specifies the services necessary to address the patient's needs as identified by the comprehensive assessment & changes in the patient's condition, & must include measurable & expected outcomes & estimated timetables to achieve outcomes. Outcome goals must be consistent with current professionally accepted clinical practice standards.					
V543	(1) Dose of dialysis/volume status Monitor each treatment	Management of volume status	Eucardiac & pre-EP <14000, post-EP <13000 (adult), lower of 90% of normal for age/sex or 13000 (pediatric)	KDOQI HD Adequacy 2006 KDOQI Cardiovascular 2005	Chart Interview
V544	(1) Dose of dialysis (PD adequacy) Monitor adequacy monthly	A:Adult HD <3 hours 3x/week, minimum spKtV A:Adult HD 2x/week, spKtV <2 mL/min. HD 2, 4,4x/week, minimum spKtV	≥1.2 (or URR≥25); Min. 3 hours/tx if RR7 <2x/week Inadequate treatment frequency	NKF #6240 (adult) NKF #4423 (pedic) KDOQI HD Adequacy 2006	Chart Interview
V544	(1) Dose of dialysis (PD adequacy – adult) Monitor 1* month & every 4 months	Minimum delivered KtV _{urea}	≥1.7/week	NKF #6318 KDOQI PD Adequacy 2006	Chart Interview
V544	(1) Dose of dialysis (PD adequacy – pediatric) Monitor 1* month & every 4 months	Minimum delivered KtV _{urea}	≥1.5/week	KDOQI PD Adequacy 2006	Chart Interview
V545	(2) Nutritional status – Monitor albumin & body wt monthly, monitor other parameters at V550 as needed	Albumin Body weight & other parameters listed at V550	≥4.0 g/dL, SCG preferred, if SCG lab normal % usual wt, % standard wt, BMI, wt, % body fat	KDOQI Nutrition 2003 KDOQI CKD 2002	Chart Interview
V545	(2) Nutritional status (pediatric) monitor monthly	Length/height-age % or SD, dry wt & wt-age % or SD, BMI-for-height % or SD, head circumference % (age <3), nPCR	nPCR normalized-HD time (nPCR and albumin are not predictive of wt loss/nutritional status in younger children)	KDOQI Pediatric Nutrition 2006	Chart Interview
V546	(2) Mineral metabolism & renal bone disease Monitor calcium & phosphorus monthly Monitor intact PTH every 3 months	Calcium corrected for albumin (SCG) Phosphorus Intact PTH (consider with other MSD labs, not in bicolor)	Normal for lab; preferred upper level <10.2 mg/dL* AR: 3.5-5.5 mg/dL Under review	NKF #1454 KDIGO CKD-MBD 2009	Chart Interview
V547	(4) Anemia – high non-ESA – monitor monthly	Hemoglobin (Adult & pediatric)	No upper level established? See High on ESA (below) for management of anemia?	FDA 504/11 for more info re CKD SD recommendation	Chart Interview
V547	(4) Anemia – high on ESA – monitor weekly until stable, then monitor monthly; evaluate other anemia causes, educate patients about risks/benefits	Hemoglobin (Adult & pediatric)	Institute ESAs <10 g/dL, interrupt or ↓ dose near or >11 g/dL. Give lowest dose of ESAs to avoid transfusion (especially in transplant candidates); consider patient preference	FDA 504/11 for more info re CKD SD recommendation	Chart Interview
V548	(4) Anemia – Monitor iron stores routinely	Adult & pediatric: transferrin saturation Adult & pediatric: serum ferritin	>20% (HD, PD), or CH >20 pg/dL HD: >200 ng/mL, PD: >100 ng/mL, HDFD: >500 ng/mL, or replete if indicated	KDOQI Anemia 2006	Chart Interview

Source: OPR-Dialysis Facility Reports; OM-CROWNline; Chart-Patient Chart; Records-Facility Records; Interview-Patient/Staff Interview; Abbreviations: BGSB/CP=chronic green/purple BMP=body mass index; CAPP3=Consumer Assessment of Healthcare Providers & Services; CFS=history forming unit; CH=creatinine; hemoglobin; CMS OPR-CMS Clinical Performance Measure; DOPPS=Dialysis Outcomes & Practice Patterns Study; ESA=erythropoiesis stimulating agent; KRDG=Kidney Disease Improving Global Outcomes; KDOQI=Kidney Disease Outcomes Quality Initiative; nPCR=normalized protein-to-creatinine ratio; NKF=National Quality Forum; RPR=renal urea reduction; SC=standard deviation; spKtV=single pool KtV
Centers for Medicare & Medicaid Services - Version 2.3

Measures Assessment Tool- Dietitian

494.80
Patient Assessment

- V508 – Renal bone disease
- V509 – Nutrition status

494.90
Plan of Care

- V545 – Nutrition status
- V546 – Mineral & bone disease

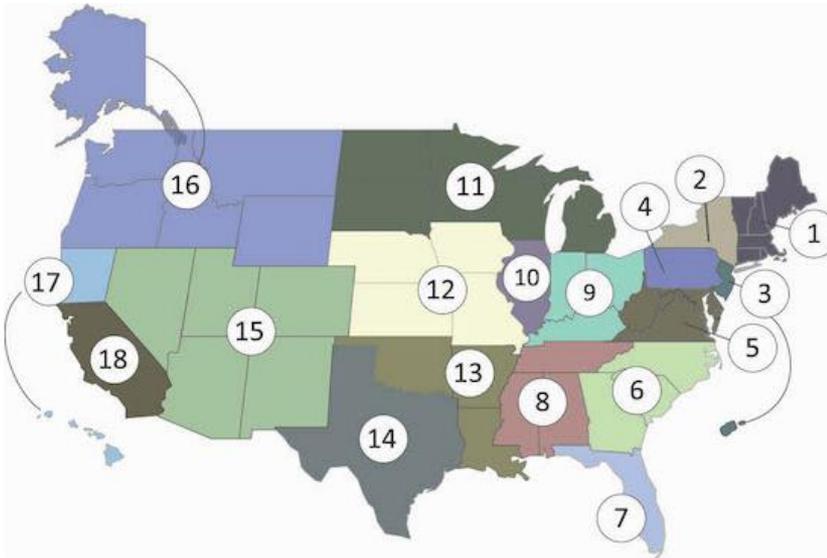
494.110
Quality Assessment
& Performance
Improvement

- V630 – Nutrition status
- V631 – Mineral & bone disease

3 major
phases of care

2 repeating
items that are
addressed

- **V501** establishes an *interdisciplinary team* that includes a dietitian
- **V509** requires the *evaluation of nutritional status* by a dietitian as part of the patient's comprehensive assessment
- **V520** outlines the requirements for a patient's care plan and defines classification and follow-up for stable vs. unstable patients
- **V545** states that a patient's albumin level and body weight must be measured monthly in an effort to achieve and sustain an effective nutritional status
- **V546** (*pediatric*) states nPCR be monitored monthly in HD teens
- **V630** requires an ongoing QA program that tracks indicators of nutrition status
- **V689** and **V690** state that the dietitian must be registered with CDR and have 1 year professional work experience in clinical nutrition
- **V758** states that the dietitian must be available to meet patient needs



The Forum of ESRD Networks is a not-for-profit organization that advocates on behalf of its membership and coordinates projects and activities of mutual interest to ESRD Networks. All 18 Networks are members of the Forum which facilitates the flow of information and advances a national quality agenda with CMS and other renal organizations.

<http://esrdnetworks.org>



BCRenal | Follow us [Facebook] [Twitter] [YouTube] | Search...

[Kidney Services](#) | [Health Info](#) | [Research](#) | [About](#) | [Contact](#) | [Health Professionals](#) | [Donate](#) | [Careers](#)

Menu | [Kidney Services](#) | [SHARE](#) | [A](#) | [A](#)

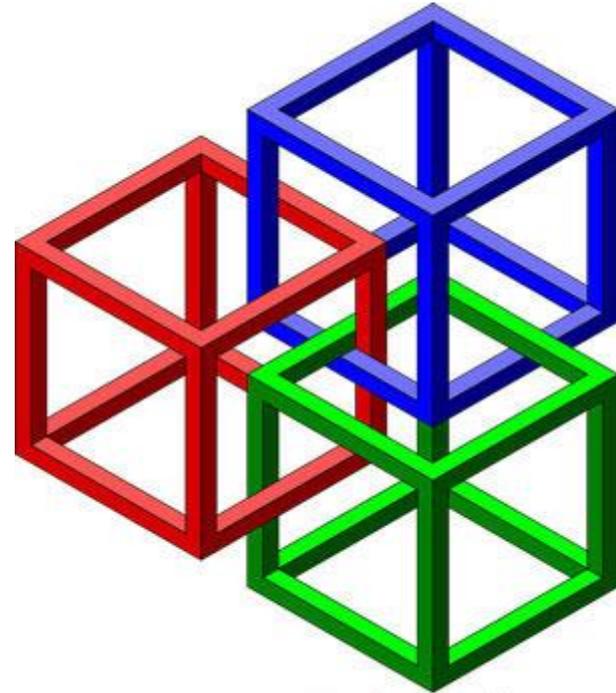
Kidney Services in BC

Regulatory Guidelines

Professional Practise

Knowledge/ Networking

Patient Resources



ComputerHope.com

Academy of Nutrition and Dietetics and National Kidney Foundation: Revised 2014 Standards of Practice and Standards of Professional Performance for Registered Dietitian Nutritionists (Competent, Proficient, and Expert) in Nephrology Nutrition

Pamela S. Kent, MS, RD, CSR, LD, Maureen P. McCarthy, MPH, RD, CSR, LD,†
Jerrilynn D. Burrowes, PhD, RD, CDN,‡ Linda McCann, RD, CSR,§
Jessie Pavlinac, MS, RD, CSR, LD,† Catherine M. Goeddeke-Merickel, MS, RDN, LD,¶
Karen Wiesen, MS, RD, LD,** Sarah Kruger, MS, RD, CSR,†† Laura Byham-Gray, PhD, RD,‡‡
Rory C. Pace, MPH, RD, CSR,§§ Valarie Hannahs, MS, RD, LD,¶¶ and
Debbie Benner, MA, RD, CSR****

Journal of Renal Nutrition, Vol 24, No 5 (September), 2014: pp 275-285

Academy of Nutrition and Dietetics: Revised 2015 Standards of Practice and Standards of Professional Performance for Registered Dietitian Nutritionists (Competent, Proficient, and Expert) in Pediatric Nutrition



Nancy Nevin-Folino, MEd, RD, CSP, LD, FADA, FAND; Beth N. Ogata, MS, RD, CSP, CD; Pamela J. Charney, PhD, RD, CHTS-CP;
Katrina Holt, MPH, MS, RD, FAND; Holly L. Brewer, MS, RDN, LD; Mary K. Sharrett, MS, RD, LD, CNSC; Liesje N. Carney, RD, CSP, LDN

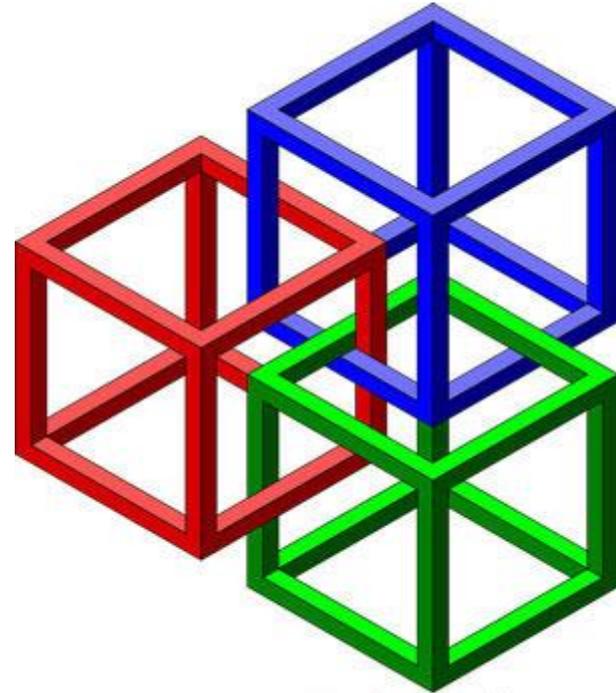
JOURNAL OF THE ACADEMY OF NUTRITION AND DIETETICS March 2015 Volume 115 Number 3

Regulatory Guidelines

Professional Practise

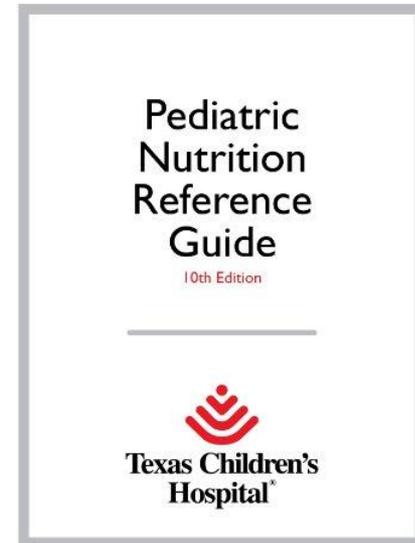
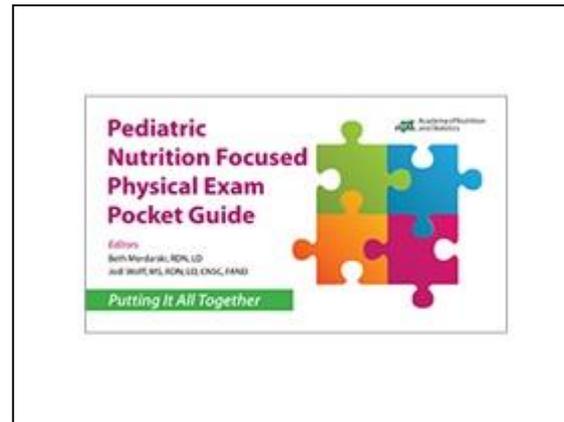
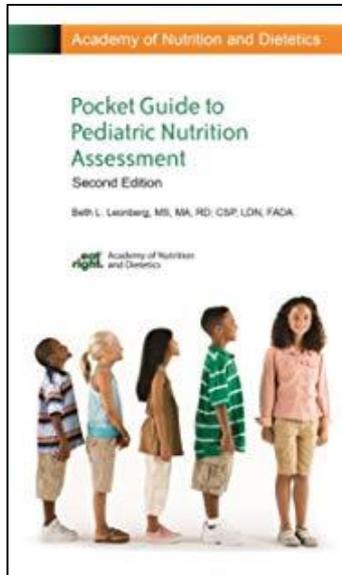
Knowledge/ Networking

Patient Resources

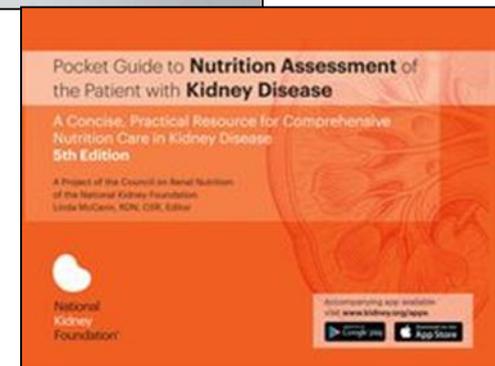
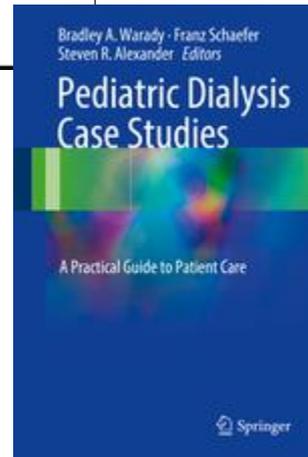
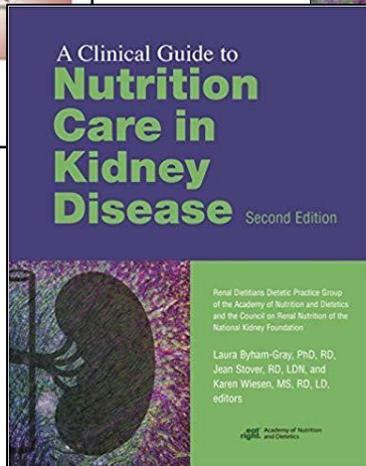
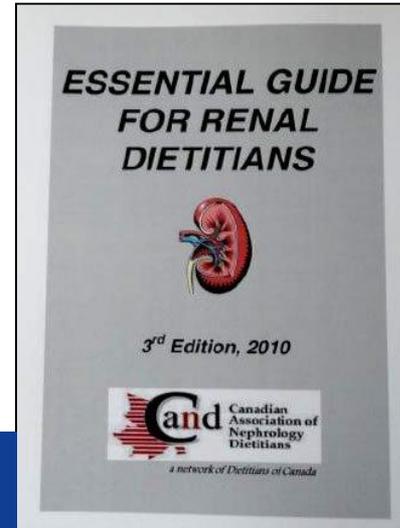
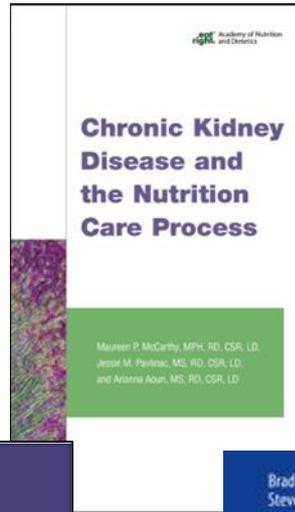
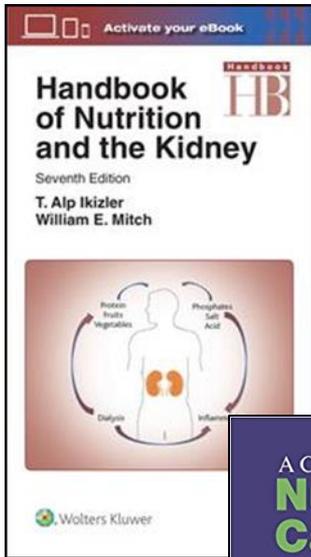


ComputerHope.com

Handbooks and Pocket Guides- Pediatrics



Textbooks, Handbooks, Guides: *Renal + Pediatrics*

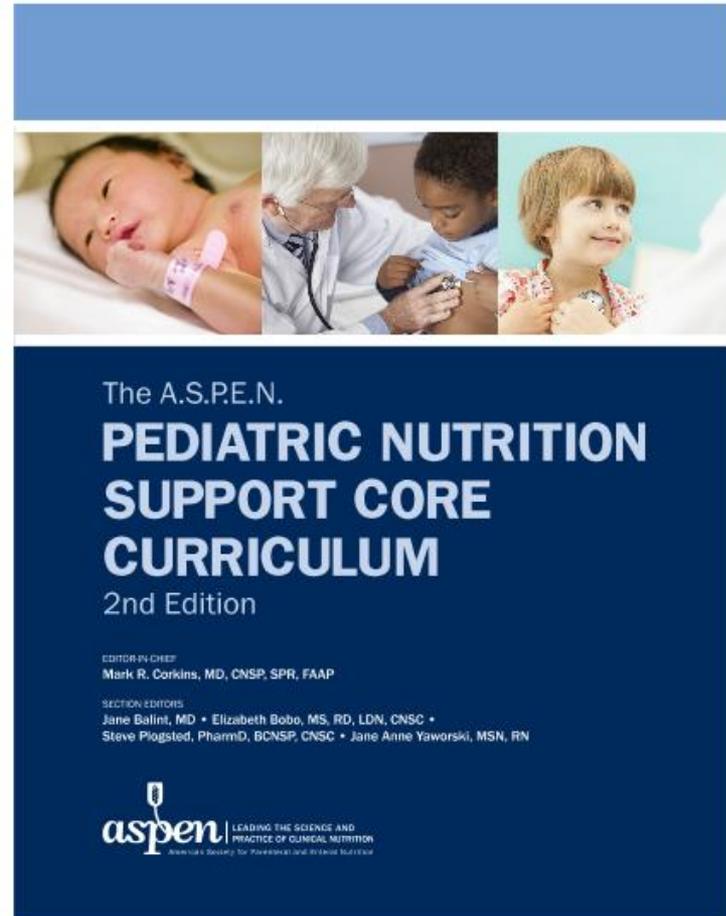
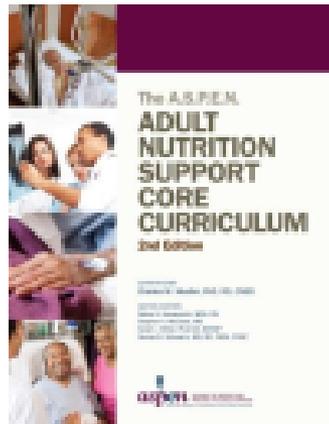


- **Renal Disease**

Christina L. Nelms, MS, RD, CSP, LMNT

Marisa Juarez, MPH, RD, LD

Bradley A. Warady, MD



PediTools

Clinical tools for pediatric providers

On-site Resources



Growth calculator for preterm infants

Uses the 2013 Fenton growth charts to report percentiles and Z-scores. Now with integrated GA calculator and decision support.



**** NEW ** Fenton 2013 Electronic Growth Chart**

Generates a longitudinal growth chart, calculating percentiles and weekly weight change required to maintain percentile.



Hyperbilirubinemia management ** UPDATED **

2004 AAP hyperbilirubinemia management guidelines for newborns \geq 35 weeks gestation, with multi-point nomogram, phototherapy, and exchange transfusion plots.



Growth chart for infants 0 to 36 months with Down syndrome

Uses the Zemel 2015 growth charts to report percentiles and Z-scores on growth metrics.



Growth chart for children 2 to 20 years with Down syndrome

Uses the Zemel 2015 growth charts to report percentiles and Z-scores on growth metrics.

- Fenton – preterm infants
- Down Syndrome
- WHO
- CDC
- MUAC
- WHO arm circumference
- Skinfolds (triceps, subscapular)
- Parenteral nutrition

Kidney Disease Outcomes Quality Initiative (KDOQI)

KDOQI Clinical Practice Guidelines for Nutrition in Children with CKD: 2008 Update



RECOMMENDATIONS

- S16 Recommendation 1: Evaluation of Growth and Nutritional Status
- S27 Recommendation 2: Growth
- S31 Recommendation 3: Nutritional Management and Counseling
- S35 Recommendation 4: Energy Requirements and Therapy
- S48 Recommendation 5: Protein Requirements and Therapy
- S53 Recommendation 6: Vitamin and Trace Element Requirements and Therapy
- S61 Recommendation 7: Bone Mineral and Vitamin D Requirements and Therapy
- S70 Recommendation 8: Fluid and Electrolyte Requirements and Therapy
- S75 Recommendation 9: Carnitine
- S77 Recommendation 10: Nutritional Management of Transplant Patients

Pediatric Renal Nutrition Taskforce (PRNT):

Dietitians and Nephrologists – Europe and North America

Since 2017....reviewing literature and publishing clinical practise recommendations.

Published:

- Calcium and Phosphate
- Energy and Protein
- Assessment
- Delivery of Nutrition prescription
- Potassium management

Additional CPRs Coming soon!

- Obesity and Metabolic Syndrome
- Acute Kidney Injury
- Transplant



Clinical Practise Recommendations (CPRs)

Pediatric Nephrology (2020) 35:501–518
<https://doi.org/10.1007/s00467-019-04370-z>

GUIDELINES

The dietary management of calcium and phosphate in children with CKD stages 2-5 and on dialysis—clinical practice recommendation from the Pediatric Renal Nutrition Taskforce

Louise McAlister¹ · Pearl Pugh² · Laurence Greenbaum³ · Dieter Haffner⁴ · Lesley Rees¹ · Caroline Anderson⁶ · An Desloovere⁶ · Christina Nelms⁷ · Michiel Oosterveld⁸ · Fabio Paglialonga⁹ · Nonnie Polderman¹⁰ · Leila Qizalbash¹¹ · José Renken-Terhaerd¹² · Jetta Tuokkola¹³ · Bradley Warady¹⁴ · Johan Vande Walle⁶ · Vanessa Shaw^{1,15} · Rukshana Shroff¹

Received: 1 August 2019 / Revised: 1 September 2019 / Accepted: 17 September 2019 / Published online: 30 October 2019

Pediatric Nephrology (2020) 35:519–531
<https://doi.org/10.1007/s00467-019-04426-0>

GUIDELINES

Energy and protein requirements for children with CKD stages 2-5 and on dialysis—clinical practice recommendations from the Pediatric Renal Nutrition Taskforce

Vanessa Shaw^{1,2} · Nonnie Polderman³ · José Renken-Terhaerd⁴ · Fabio Paglialonga⁵ · Michiel Oosterveld⁸ · Jetta Tuokkola⁷ · Caroline Anderson⁸ · An Desloovere⁹ · Laurence Greenbaum¹⁰ · Dieter Haffner¹¹ · Christina Nelms¹² · Leila Qizalbash¹³ · Johan Vande Walle⁹ · Bradley Warady¹⁴ · Rukshana Shroff^{15,16} · Lesley Rees^{15,16}

Received: 30 September 2019 / Revised: 8 November 2019 / Accepted: 19 November 2019 / Published online: 16 December 2019
 © The Author(s) 2019

Pediatric Nephrology (2021) 36:187–204
<https://doi.org/10.1007/s00467-020-04623-2>

GUIDELINES

Delivery of a nutritional prescription by enteral tube feeding in children with chronic kidney disease stages 2–5 and on dialysis—clinical practice recommendations from the Pediatric Renal Nutrition Taskforce

Lesley Rees¹ · Vanessa Shaw^{1,2} · Leila Qizalbash³ · Caroline Anderson⁴ · An Desloovere⁵ · Laurence Greenbaum⁶ · Dieter Haffner⁷ · Christina Nelms⁸ · Michiel Oosterveld⁹ · Fabio Paglialonga¹⁰ · Nonnie Polderman¹¹ · José Renken-Terhaerd¹² · Jetta Tuokkola¹³ · Bradley Warady¹⁴ · Johan Van de Walle⁵ · Rukshana Shroff¹ · on behalf of the Pediatric Renal Nutrition Taskforce



Pediatric Nephrology
<https://doi.org/10.1007/s00467-020-04852-5>

GUIDELINES

Assessment of nutritional status in children with kidney diseases—clinical practice recommendations from the Pediatric Renal Nutrition Taskforce

Christina L. Nelms¹ · Vanessa Shaw^{2,3} · Larry A. Greenbaum^{4,5} · Caroline Anderson⁶ · An Desloovere⁷ · Dieter Haffner⁸ · Michiel J. S. Oosterveld⁹ · Fabio Paglialonga¹⁰ · Nonnie Polderman¹¹ · Leila Qizalbash¹² · Lesley Rees² · José Renken-Terhaerd¹³ · Jetta Tuokkola¹⁴ · Johan Vande Walle⁷ · Rukshana Shroff² · Bradley A. Warady¹⁵

Received: 20 May 2020 / Revised: 3 October 2020 / Accepted: 6 November 2020
 © The Author(s) 2020



Published with Open Access

COMING
SOON!

PRONA
Pocket Guide



Pediatric Renal Dietitians Of North America

Kidney Disease Improving *Global* Outcomes (KDIGO)

Kidney Disease: Improving Global Outcomes (KDIGO) was originally established in 2003 by the National Kidney Foundation, a U.S. foundation experienced in developing and implementing guidelines. In 2013 KDIGO became an independently incorporated non-profit foundation, and is governed by an international volunteer Executive Committee.

KDIGO CLINICAL PRACTICE GUIDELINE FOR
EVALUATION AND MANAGEMENT OF CKD
KDIGO Public Review Draft
May 2012



KDIGO 2017 CLINICAL PRACTICE GUIDELINE UPDATE
FOR THE DIAGNOSIS, EVALUATION, PREVENTION, AND
TREATMENT OF CHRONIC KIDNEY DISEASE-MINERAL AND
BONE DISORDER (CKD-MBD)

KDIGO guidelines translate the best worldwide scientific evidence into practical recommendations for clinicians and patients.

KDIGO Guidelines

KDIGO guidelines are created, reviewed, published and implemented following a rigorous scientific process.


ACUTE KIDNEY INJURY (AKI)


ANEMIA IN CKD


BLOOD PRESSURE IN CKD


CKD EVALUATION AND
MANAGEMENT


CKD-MINERAL AND BONE
DISORDER (CKD-MBD)


DIABETES AND CKD


GLOMERULONEPHRITIS (GN)


HEPATITIS C IN CKD


LIPIDS IN CKD


LIVING KIDNEY DONOR


TRANSPLANT CANDIDATE


TRANSPLANT RECIPIENT

Eg.:

*KDIGO Clinical Practice Guideline for Evaluation and Management of CKD: 2012

*KDIGO 2017 Clinical Practice Guideline Update for the diagnosis, evaluation, prevention and treatment of CKD – (CKD-BMD)

- Large studies that are relevant to practice.....



Chronic Kidney Disease
in Children

Home

Study
Information

Study
Administration

Investigator
Resources

Coordinator's
Corner

Psychologist's
Corner

Family
Corner

About CKiD

The CKiD Study is a NIH-funded, multicenter, prospective cohort study of children aged 6 months to 16 years with mild to moderate impaired kidney function. The primary goals of CKiD are to determine the risk factors for decline in renal function and to define how progressive decline in renal function impacts biomarkers of risk factors for cardiovascular disease; neurocognitive function and behavior; and growth failure and its associated morbidity. Two clinical coordinating centers (CCCs) (at Children's Hospital of Philadelphia and at Children's Mercy Hospital in Kansas City), a central biochemistry laboratory (at the University of Rochester), and a data coordinating center (at Johns Hopkins School of Public Health) formed a cooperative agreement to conduct the CKiD Study.

Study Aims

The specific aims are to:

- Identify novel and traditional renal disease risk factors for the progression of CKD (e.g. decline of GFR) in children
- Characterize the impact of a decline in kidney function on neurodevelopment, cognitive abilities, and behavior
- Identify the prevalence and evolution of traditional and novel cardiovascular disease risk factors in progressive CKD
- Examine the effects of declining GFR on growth and the treatment of growth failure, and to assess the consequences of growth failure on morbidity in children with CKD

CKiD Publications by Year

[2006](#) [2007](#) [2008](#) [2009](#) [2010](#) [2011](#) [2012](#) [2013](#) [2014](#) [2015](#) [2016](#)
[2017](#) [2018](#)

2018 Publications

Barletta G, Pierce C, Mitsnefes M, Samuels J, Warady B, Furth S, Flynn J. Is blood pressure improving in children with chronic kidney disease?: a period analysis. *Hypertension* 2018;71:444-450. [PMCID: PMC5812788](#)

Brooks ER, Haymond S, Rademaker A, Pierce C, Helenowski I, Passman R, Vicente F, Warady BA, Furth SL, Langman CB. Contribution of symmetric dimethylarginine to GFR decline in pediatric chronic kidney disease. *Pediatr Nephrol* 2018;33:697-704. [PMID: 29214443](#)

Furth SL, Pierce C, Hui WF, White CA, Wong CS, Schaefer F, Wuehl E, Abraham A, Warady BA. Estimating time to ESRD in children with CKD. *Am J Kidney Dis* 2018; 71:783-792. [PMCID: PMC5970998](#) (Letter to the Editor by KW Choy pii:S0272-6386(18)30758-3; Response on pii: S0272-6386(18)30757-1).

Ku E, McCulloch CE, Warady BA, Furth SL, Grimes BA, Mitsnefes M. Twenty-four-hour Ambulatory Blood Pressure Versus Clinic Blood Pressure Measurements and Risk of Adverse Outcomes in Children with CKD. *CJASN* 2018;13:422-428. [PMID: 29440119](#)

North American Pediatric Renal Trials and Collaborative Studies

NAPRTCS
Online

Resources

- ▶ **Home**
- ▶ **Announcements** [Advantage eClinical Training Video](#)
- ▶ **Resources** [Advantage eClinical Quick Reference Guide](#)
- ▶ **Study Documents** [Data System Access Specification Form](#)
- ▶ **Directory**
- ▶ **Study Login** [Frequently Asked Questions \(FAQ\)](#)
- ▶ **Training System** [Growth Chart Calculator](#)
- ▶ **Coordinators** [HIPPA Sample Authorization Form](#)
- ▶ **Benchmark Project** [NAPRTCS Center in Good Standing Criteria](#)
- ▶ **CHA-QI** [NAPRTCS PCC Newsletter](#)
- ▶ **Other Information** [NAPRTCS PCC Operations Manual](#)

[Organizational Chart](#)
[Presentations](#) from Annual Meeting
[Special Studies Application with Instructions](#)
[Tax Payer ID Form](#)
[Training Manual](#)



[TUS](#) ▾ [PATIENTS AND FAMILIES](#) ▾ [REGISTRY DATA ENTRY](#) [BENCHMARKING](#) [CYSTINOSIS REGISTRY](#) [SCOPE](#) ▾

[ory & Leadership](#)

[Partners](#)

[sarch Initiatives](#)

[ography](#)

[Home](#) / [About Us](#) / [Bibliography](#)

Bibliography

Publications

1. Fathallah-Shaykh S, Drozd D, Flynn J, et al. Efficacy and safety of sevelamer carbonate in hyperphosphatemic pediatric patients with chronic kidney disease. *Pediatr Nephrol* 2018 Feb;33(2):325-333. doi: 10.1007/s00467-017-3787-0. Epub 2017 Sep 12.
2. Warady BA, Barcia J, Benador N et al. De novo weekly and biweekly darbepoetin alfa dosing in pediatric patients with chronic kidney disease. *Pediatr Nephrol*. 2018 Jan;33(1):125-1137. doi: 10.1007/s00467-017-3758-5. Epub 2017 Aug 17.

<https://naprtcs.org/study-details/bibliography>

<https://web.emmes.com/study/ped/resources.htm>

International Pediatric Dialysis Network

LOGIN

[Registration Form]

About IPDN

Network Participants

Links

IPDN Sponsors

Contact

Privacy Policy

About IPDN

The International Pediatric Dialysis Network is a global consortium of pediatric nephrology centers dedicated to the care of children on chronic dialysis. The IPDN aims to

- improve the quality of pediatric dialysis care worldwide
- collect basic information regarding pediatric dialysis practices and outcomes
- provide useful tools and management algorithms for daily dialysis practice
- provide global benchmarking of pediatric dialysis outcomes
- perform prospective observational studies on important clinical issues in pediatric dialysis

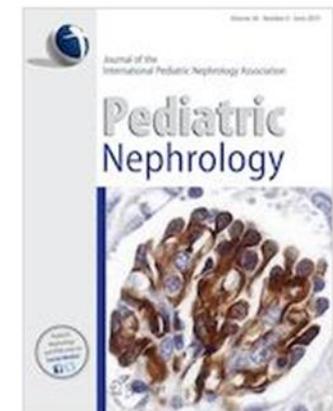
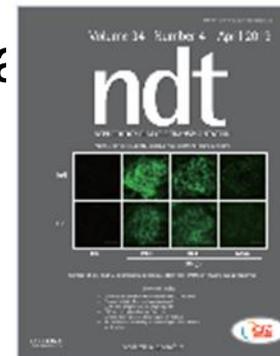
IPDN entertains two registries:

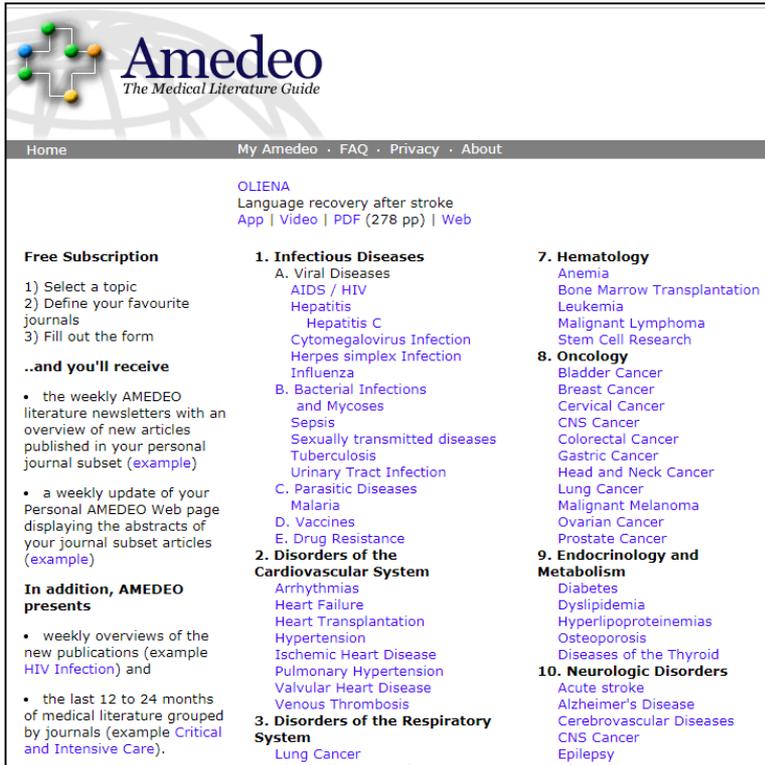
The IPPN registry for children on chronic peritoneal dialysis, and the IPHN registry for children on hemodialysis. If you would like to join the IPDN, please fill out the registration form. IPDN membership is free of charge. We grant institutional and individual memberships: With your institutional membership you have access to all information pages of the website.

At present,
245 institutions participate in the network
and
573 individual members actively contribute data to the network.

To date,
3662 patients have been enrolled in the IPPN Registry at 128 contributing centers in 43 countries
and
917 patients have been enrolled in the IPHN Registry at 84 contributing centers in 36 countries.

- Journal of Renal Nutrition
- Pediatric Nephrology
- Peritoneal Dialysis International
- American Journal of Kidney Disease
- Kidney International
- Clinical Journal of the American Society of Nephrology
- Nephrology News & Issues
- Nephrology, Dialysis, and Transplantation







Amedeo

The Medical Literature Guide

[Home](#) [My Amedeo](#) · [FAQ](#) · [Privacy](#) · [About](#)

[OLIENA](#)
 Language recovery after stroke
[App](#) | [Video](#) | [PDF \(278 pp\)](#) | [Web](#)

Free Subscription
 1) Select a topic
 2) Define your favourite journals
 3) Fill out the form
..and you'll receive

- the weekly AMEDEO literature newsletters with an overview of new articles published in your personal journal subset ([example](#))
- a weekly update of your Personal AMEDEO Web page displaying the abstracts of your journal subset articles ([example](#))

In addition, AMEDEO presents

- weekly overviews of the new publications (example [HIV Infection](#)) and
- the last 12 to 24 months of medical literature grouped by journals (example [Critical and Intensive Care](#)).

1. Infectious Diseases
 A. Viral Diseases
[AIDS / HIV](#)
[Hepatitis](#)
[Hepatitis C](#)
[Cytomegalovirus Infection](#)
[Herpes simplex Infection](#)
[Influenza](#)
 B. Bacterial Infections and Mycoses
[Sepsis](#)
[Sexually transmitted diseases](#)
[Tuberculosis](#)
[Urinary Tract Infection](#)
 C. Parasitic Diseases
[Malaria](#)
 D. Vaccines
 E. Drug Resistance

2. Disorders of the Cardiovascular System
[Arrhythmias](#)
[Heart Failure](#)
[Heart Transplantation](#)
[Hypertension](#)
[Ischemic Heart Disease](#)
[Pulmonary Hypertension](#)
[Valvular Heart Disease](#)
[Venous Thrombosis](#)

3. Disorders of the Respiratory System
[Lung Cancer](#)

7. Hematology
[Anemia](#)
[Bone Marrow Transplantation](#)
[Leukemia](#)
[Malignant Lymphoma](#)
[Stem Cell Research](#)

8. Oncology
[Bladder Cancer](#)
[Breast Cancer](#)
[Cervical Cancer](#)
[CNS Cancer](#)
[Colorectal Cancer](#)
[Gastric Cancer](#)
[Head and Neck Cancer](#)
[Lung Cancer](#)
[Malignant Melanoma](#)
[Ovarian Cancer](#)
[Prostate Cancer](#)

9. Endocrinology and Metabolism
[Diabetes](#)
[Dyslipidemia](#)
[Hyperlipoproteinemias](#)
[Osteoporosis](#)
[Diseases of the Thyroid](#)

10. Neurologic Disorders
[Acute stroke](#)
[Alzheimer's Disease](#)
[Cerebrovascular Diseases](#)
[CNS Cancer](#)
[Epilepsy](#)

Renal
 Nutrition
 Pediatrics
 Other interests

Weekly emails with
 bibliographic lists about new
 publications

We have screened the following journals for you:

Am J Kidney Dis

Am J Nephrol

BMJ

J Am Soc Nephrol

J Pediatr

J Ren Nutr

Kidney Int

Lancet

N Engl J Med

Nephrol Dial Transplant

Nephron

Pediatr Nephrol

11. LUBBE K, Nusken E, Rascher K, von Gersdorff G, et al.

Glomerular disease patients have higher odds not to reach quality targets in chronic dialysis compared with CAKUT patients: analyses from a nationwide German paediatric dialysis registry.

Pediatr Nephrol. 2019 Mar 6. pii: 10.1007/s00467-019-04218.

PubMed: www.amedeo.com/p2.php?id=30843113&s=crf&pm=a1b7681ac819d1b

ABSTRACT available

Share: <http://m.amedeo.com/30843113>

12. WONG VEGA M, Juarez Calderon M, Tufan Pekkucusken N, Srivaths P, et al.

Feeding modality is a barrier to adequate protein provision in children receiving continuous renal replacement therapy (CRRT).

Pediatr Nephrol. 2019 Mar 6. pii: 10.1007/s00467-019-04211.

PubMed: www.amedeo.com/p2.php?id=30843114&s=crf&pm=a1b7681ac819d1b

ABSTRACT available

Share: <http://m.amedeo.com/30843114>

13. HWANG SH, Lee DH, Min J, Jeon JY, et al.

Handgrip Strength as a Predictor of All-Cause Mortality in Patients With Chronic Kidney Disease Undergoing Dialysis: A Meta-Analysis of Prospective Cohort Studies.

J Ren Nutr. 2019 Feb 28. pii: S1051-2276(19)30002.

PubMed: www.amedeo.com/p2.php?id=30827839&s=crf&pm=a1b7681ac819d1b

ABSTRACT available

Share: <http://m.amedeo.com/30827839>

NKF: Council on Renal Nutrition
AND: Renal Practice Group
www.renalNutrition.org



AND: Pediatric Nutrition Practice Group

PRONA: Pediatric Renal Dietitians of North America
website is currently under development
www.prona.online



Adult Renal Listserv:
renalrd-request@mailman.srv.ualberta.ca

➔ Peds Renal Listserv:
PedsRenalRD@mailman.srv.ualberta.ca

Peds Nutrition Listserv:
PEDI-RD@LIST.UIOWA.EDU




 U.S. DEPARTMENT OF AGRICULTURE

 Agricultural Research Service

[HOME](#)
[DATA TYPE DOCUMENTATION](#)
[DOWNLOAD DATA](#)
[API GUIDE](#)
[HELP](#)
[FAQ](#)
[ABOUT US](#)
[CONTACT FOODDATA CENTRAL](#)

FoodData Central

Search FoodData Central:

🔍

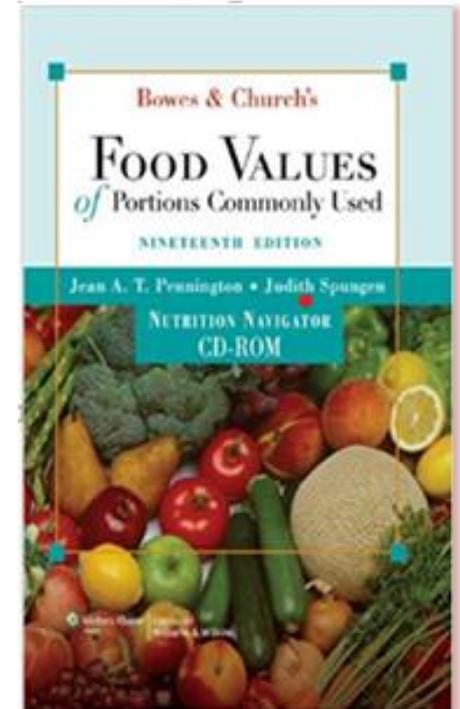
 [Download Data](#)
 [Get an API Key](#)
 [API Guide](#)

FoodData Central is an integrated data system that provides expanded nutrient profile data and links to related agricultural and experimental research.

FoodData Central is managed by the Agricultural Research Service and hosted by the National Agricultural Library.

FoodData Central:

- Includes five distinct types of data containing information on food and nutrient profiles, each with a unique purpose.
- Provides a broad **snapshot in time** of the nutrients and other components found in a wide variety of foods and food products.
- Presents data that come from a variety of sources and are updated as new information becomes available.



<https://fdc.nal.usda.gov>


UNIVERSITY OF MINNESOTA

Driven to Discover™



Nutrition Coordinating Center (NCC)

NCC provides databases, software, training, and services for the collection and analysis of dietary data.



[Products](#)
[Services](#)
[Industry](#)
[Resources](#)
[Support](#)
[Events](#)
[About](#)
[Contact](#)

🔍

FOOD PROCESSOR NUTRITION ANALYSIS SOFTWARE
You Are Here: [HOME](#) / [ESHA PRODUCTS](#) / [FOOD PROCESSOR NUTRITION ANALYSIS SOFTWARE](#)



Specific to Pediatric Renal Nutrition:

NKF – National Kidney Foundation – Spring Clinical Meeting

www.kidney.org/spring-clinical

WSPN – Western Society of Pediatric Nephrology

**does not always have a nutrition program.*

ASPN – American Society of Pediatric Nephrology –

Allied Health Symposium

1.5 day meeting - Las Vegas 2019

ADC – Annual Dialysis Conference

with pre-conference workshop: Fundamentals of Dialysis in Children

PRNA – Pediatric Renal Nutrition Academy

1-2 day events solely dedicated to Pediatric Renal Nutrition

NATCO – North American Transplant Coordinators Organization

www.natco1.org/education/nutrition-conference.asp

Modules:

eg. Abbott

Webinars:

eg. Vitaflo



ASSESSING GROWTH AND NUTRITIONAL STATUS

Available Credits: 1.0 Nurse Contact Hours, 1.0 Dietitian CPEU Hours
Program Date: 27 October 2017
Publication Date: 1 March 2017



DECODING THE NEW NUTRITION FACTS LABEL: OVERVIEW

Available Credits: 1.0 Nurse Contact Hours, 1.0 Dietitian CPEU
Program Date: 24 April 2017
Publication Date: 1 February 2017

This course recognizes significant changes to the Nutrition Facts Label. It offers an overview of the label changes, and translates nutrition labeling updates into consumer-friendly terms.

Vitaflo Innovation in Nutrition USA

Products Resources For Patients VIA Formulas eSuccess Contact & Ordering

Nestlé Health Science / Vitaflo-USA / VIA / CE Resources

Continuing Education (CE) Resources for Pediatric Renal Disease

These materials have been developed in conjunction with Key Opinion Leaders (KOLs) and healthcare professionals, to enhance your learning and knowledge.

<https://anhi.org/education/course-catalog>

<https://education.kidney.org/>

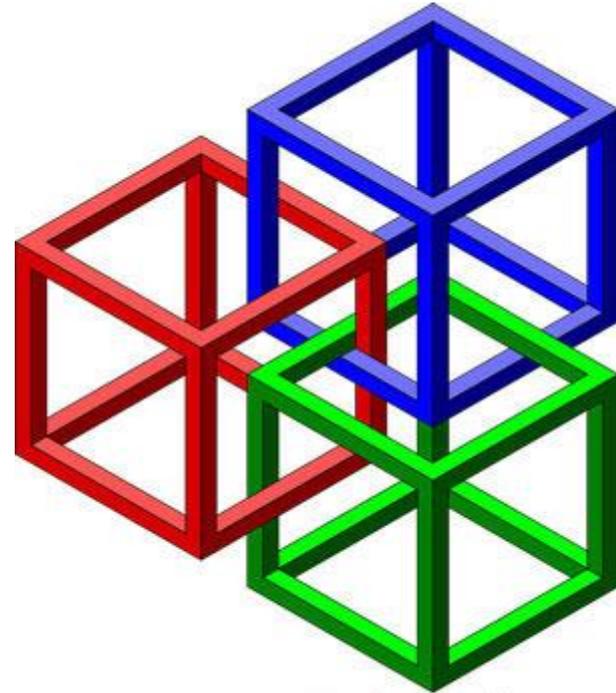
<https://www.nestlehealthscience.us/vitaflo-usa/via/pediatric%20renal%20disease/pediatricrenal>

Regulatory Guidelines

Professional Practise

Knowledge/ Networking

Patient Resources



ComputerHope.com



[En Español](#) | [NKF Store](#) | [About Us](#) | [Careers](#) | [Join NKF](#) | [Newsroom](#) | [Latest News](#) | [Contact Us](#)

National Kidney Foundation®

 Search

Home
Prevention
Kidney Disease
Patients
Organ Donation & Transplantation
Professionals
Events
Advocacy
Donate

Home »

PROFESSIONALS

Spring Clinical Meetings - Register Today!



2019

SPRING CLINICAL MEETINGS

BOSTON



May 8-12, 2019

The National Kidney Foundation 2019 Spring Clinical Meetings (SCM19) presents a unique opportunity for busy renal health care providers to learn new developments related to all aspects of nephrology. It is designed for the entire healthcare team and promotes collaborative and patient centered care. Attendees will obtain knowledge and skills through cutting edge courses, practical workshops, thought-provoking symposia and insightful debates. For more information on SCM19's programing [click here](#).

PROFESSIONAL MEMBERS

Member Login

Help us identify completing the appreciate yo feedback for f

KDOQ Poll - A

1. Should inhibitor patients

Home » Professionals »

DIETITIANS

CE Spotlight: Challenges and Strategies of Managing Iron Deficiency Anemia in CKD



Challenges and Strategies of Managing Iron Deficiency Anemia in Chronic Kidney Disease

This free online CME will bring forward evidence-based data related to the clinical challenge of preventing and treating iron deficiency anemia in patients with ND-CKD. Expert faculty explores strategies for assessing and goals for managing iron deficiency anemia.

Earn 1.5 credits today! Take this program [here](#).

Supported by an educational grant from Keryx Biopharmaceuticals, Inc..

Free prescription discount card benefiting the National Kidney Foundation

The NKF has formed a partnership with Watertree Health, the leading provider of free prescription discount cards. For full details on how your patients can save on their medications click [here](#).

Membership

Experience the advantages of NKF membership. Join today and make NKF your professional home.



[FRANÇAIS](#) | [LOGIN](#) | [SEARCH](#)



THE KIDNEY FOUNDATION OF CANADA

The foundation of kidney care.

[CLICK HERE TO DONATE NOW](#)

[ABOUT US](#) | [KIDNEY DISEASE](#) | [RESEARCH](#) | [ORGAN DONATION](#) | [SERVICES & SUPPORT](#) | [NEWS & EVENTS](#) | [YOU CAN HELP](#)

- [HISTORY](#) →
- [PUBLICATIONS](#) →
- [LEADERSHIP](#) →
- [OUR PARTNERS](#) →
- [RECOGNITION PROGRAMS](#) →
- [SCHOLARSHIPS](#) →
- [CAREERS](#) →
- [PRIVACY POLICY](#) →
- [COMPLAINTS POLICY](#) →
- [TERMS OF USE](#) →
- [CONTACT US](#) →



About Us

Vision and Mission

Our Vision
The Kidney Foundation of Canada is committed to achieving excellent kidney health and a cure for kidney disease.

Our Mission
The Kidney Foundation of Canada is the national volunteer organization committed to kidney disease through:

- Funding and stimulating innovative research for better treatments and a cure for kidney disease;
- Providing education and support to prevent kidney disease in those at risk of kidney disease to optimize their health status;
- Advocating for improved access to high quality healthcare;
- Increasing public awareness and commitment to advancing kidney health and organ donation.

- [INFORMATION & REFERRAL](#) →
- [EDUCATIONAL RESOURCES](#)
- [FINANCIAL ASSISTANCE](#) →
- [PEER SUPPORT](#) →
- [SUMMER CAMPS](#) →
- [KIDNEY COMMUNITY KITCHEN](#) →
- [KIDNEYCONNECT.CA](#) →

Fact Sheets

Chronic Kidney Disease and Related Topics

- Dealing with Depression
- Some Facts About Restless Legs Syndrome (RLS)

Nutrition

- Eating Guidelines for Diabetes and Chronic Kidney Disease
- Phosphorus (phosphate) and Chronic Kidney Disease
- Potassium and Chronic Kidney Disease
- Potassium in Multicellular Fruits and Vegetables
- Sodium (salt) and Chronic Kidney Disease
- Some facts about E. coli

Dialysis

- Skin
- Som
- Som
- Som
- Som
- Som



Kidney Diet Information

There is no standard "kidney diet" and managing your kidney diet needs can be quite challenging, especially if you have to balance two or more different diets at the same time (such as a diabetic diet or heart health diet with your kidney diet). As well, your kidney diet can have a big impact on your quality of life on everything from how well you feel to participating in family celebration and holiday meals.



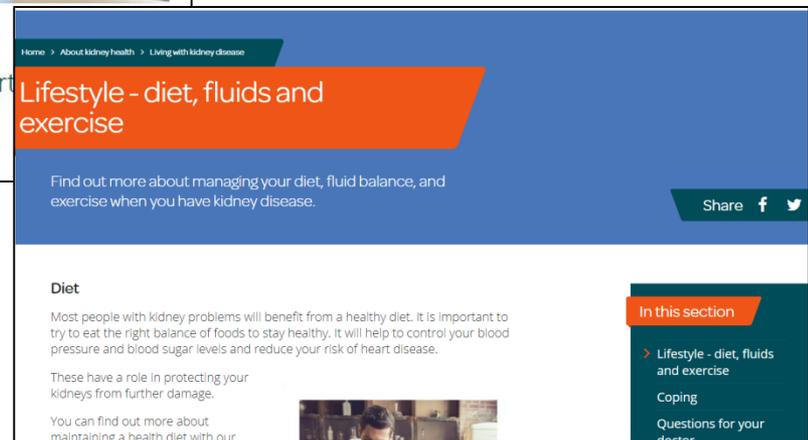
[News and campaigns](#) [About us](#) [Health professionals](#) [Contact us](#)


[About kidney health](#) [Get support](#) [Get involved](#)

[Donate](#)

About us

We are the leading kidney patient support charity providing advice, support and financial assistance to thousands every year



[Home](#) > [About kidney health](#) > [Living with kidney disease](#)

Lifestyle - diet, fluids and exercise

Find out more about managing your diet, fluid balance, and exercise when you have kidney disease.

Share  

Diet

Most people with kidney problems will benefit from a healthy diet. It is important to try to eat the right balance of foods to stay healthy. It will help to control your blood pressure and blood sugar levels and reduce your risk of heart disease.

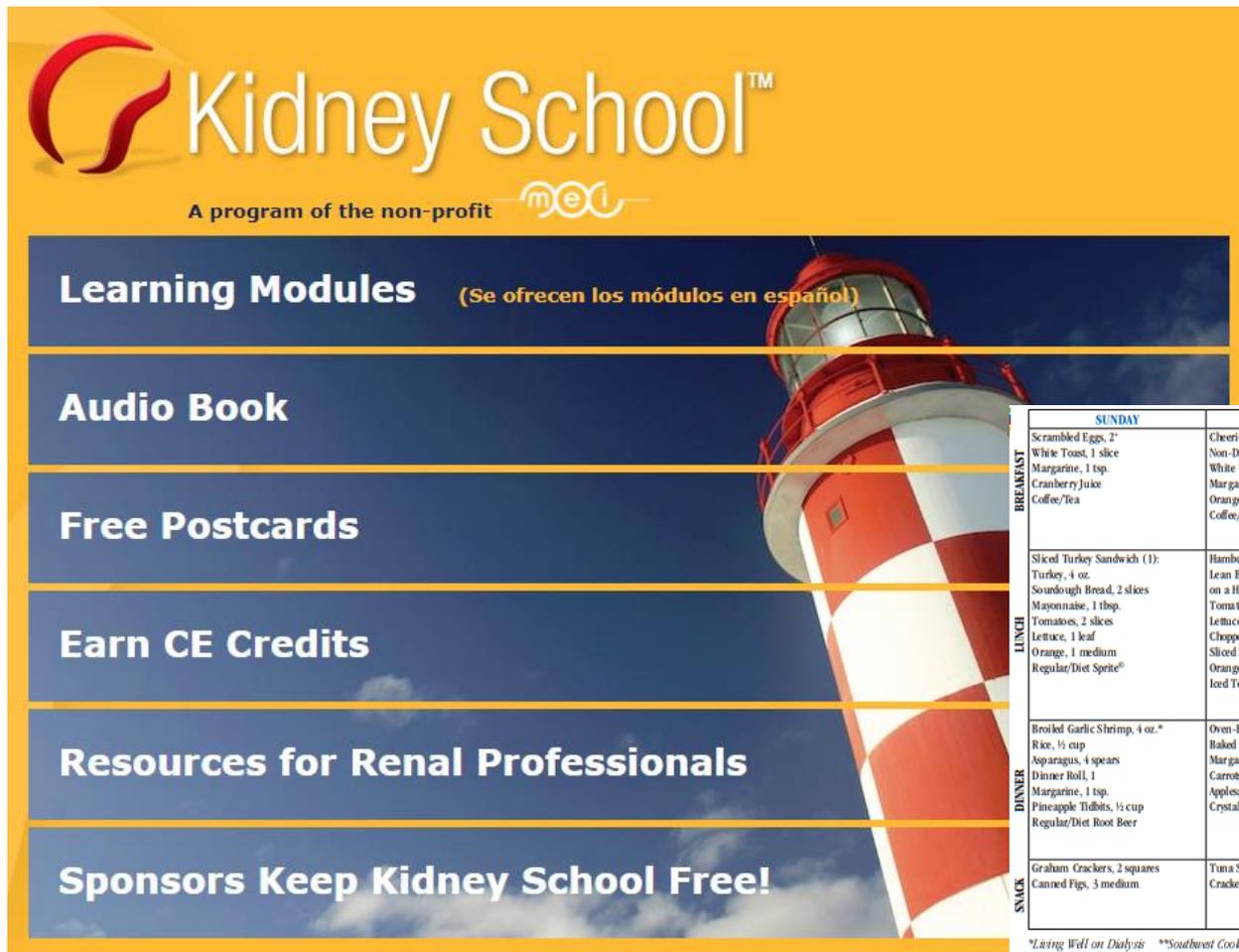
These have a role in protecting your kidneys from further damage.

You can find out more about maintaining a healthy diet with our 

In this section

- > Lifestyle - diet, fluids and exercise
- Coping
- Questions for your doctor

kidneyschool.org
Module on Nutrition



Kidney School™
A program of the non-profit **mei**

Learning Modules (Se ofrecen los módulos en español)

Audio Book

Free Postcards

Earn CE Credits

Resources for Renal Professionals

Sponsors Keep Kidney School Free!

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY
BREAKFAST	Scrambled Eggs, 2" White Toast, 1 slice Margarine, 1 tsp. Cranberry Juice Coffee/Tea	Cheerios®, ½ cup with Non-Dairy Creamer, ½ cup White Toast, 1 slice Margarine, 1 tsp. Orange Juice Coffee/Tea	French Toast, 2 slices; Eggs, 2" White Bread, 2 slices Margarine, 2 tsp. Maple Syrup, 4 tsp. Strawberry/Banana Juice Coffee/Tea	Cornflakes, ½ cup with Non-Dairy Creamer, ½ cup Bagel, 1 Jam/Jelly, 2 tsp. or Cream Cheese, 2 tsp. Grapenfruit, 1 whole Coffee/Tea
LUNCH	Sliced Turkey Sandwich (1): Turkey, 4 oz. Sourdough Bread, 2 slices Mayonnaise, 1 tbsp. Tomatoes, 2 slices Lettuce, 1 leaf Orange, 1 medium Regular/Diet Sprite®	Hamburger (1): Lean Beef Patty, 4 oz., on a Hamburger Bun Tomatoes, 2 slices Lettuce, 1 leaf Chopped Onion, 1 tbsp. Sliced Mushrooms, ¼ cup Orange Sherbet, ¼ cup Iced Tea	Grilled Salmon, 4 oz. Mexican Pasta, 1 cup** Corn Bread Roll, 1 Margarine, 1 tsp. Mixed Green Salad, ½ cup Oil and Vinegar Dressing: Salad/Olive Oil, 2 tsp. Vinegar, 1 tsp. Kiwi, 1 Regular/Diet Sprite®	Tuna Sandwich (1): Low Sodium/Water Packed Tuna, 4 oz. Mayonnaise, 1 tbsp. Chopped Onions, 1 tbsp. Chopped Celery, 1 tbsp. Swiss Cheese, 1 oz. Hard Bread Roll, 1 Apple, 1 medium Regular/Diet Root Beer
DINNER	Broiled Garlic Shrimp, 4 oz.* Rice, ½ cup Asparagus, 4 spears Dinner Roll, 1 Margarine, 1 tsp. Pineapple Tidbits, ½ cup Regular/Diet Root Beer	Oven-Baked Chicken, 4 oz. Baked Potato, 1 small Margarine, 2 tsp. Carrots, ½ cup Applesauce, ½ cup Crystal Light®	Salsbury Steak, 4 oz., with: Sliced Mushrooms, ½ cup Chopped Onions, ½ cup Margarine, 1 tsp. Dinner Roll, 1 Margarine, 1 tsp. Artichokes, ½ cup Jell-O®, ½ cup Lemonade	Baked Pork Chop, 4 oz. Rice, ½ cup Steamed Broccoli, ½ cup Margarine, 1 tsp. Fresh Apricots, 4 Iced Tea
SNACK	Graham Crackers, 2 squares Canned Figs, 3 medium	Tuna Salad, ½ cup Crackers, unsalted tops 6	Baked Apple with: Sugar, 2 tsp. Margarine, 2 tsp. Cinnamon, 1 tsp.	Chili Wheat Treats, ½ cup†

*Living Well on Dialysis **Southwest Cookbook †Egg substitute/egg whites can be used in place of whole eggs

www.niddk.nih.gov

U.S. Department of Health and Human Services

NIH National Institute of Diabetes and Digestive and Kidney Diseases

Research & Funding Health Information News About NIDDK

Home \ Health Information \ Kidney Disease

Kidney Disease

The kidneys are two bean-shaped organs. Each kidney is about the size of a fist. Your kidneys filter extra water and wastes out of your blood and make urine. Kidney disease means your kidneys are damaged and can't filter blood the way they should.

You are at greater risk for kidney disease if you have diabetes or high blood pressure. If you experience kidney failure, treatments include kidney transplant or dialysis. Other kidney problems include acute kidney injury, kidney cysts, kidney stones, and kidney infections.

Featured Topics

- Chronic Kidney Disease (CKD) Overview
- Preventing Chronic Kidney Disease
- Quick Reference on UACR & GFR
- Kidney Failure
- Diabetic Kidney Disease
- Polycystic Kidney Disease (PKD)
- Simple Kidney Cysts
- Kidney Infection (Pyelonephritis)

NIH National Institute of Diabetes and Digestive and Kidney Diseases

Search Entire Site... Search

Research & Funding Health Information News About NIDDK

Home \ Health Information \ Kidney Disease \ Kidney Disease in Children

Kidney Disease in Children

How does kidney disease affect children?

Kidney disease can affect children in various ways, ranging from treatable disorders without long-term consequences to life-threatening conditions. Acute kidney disease develops suddenly, lasts a short time, and can be serious with long-lasting consequences or may go away completely once the underlying cause has been treated. **Chronic kidney disease (CKD)** does not go away with treatment and tends to get worse over time. CKD eventually leads to **kidney failure**, described as end-stage kidney disease or ESRD when treated with a **kidney transplant** or blood-filtering treatments called dialysis.

Children with CKD or kidney failure face many challenges, which can include

- a negative self-image
- relationship problems
- behavior problems
- learning problems
- trouble concentrating
- delayed language skills development

Kidney Disease	
Acquired Cystic Kidney Disease	
Amyloidosis & Kidney Disease	
Anemia	
Chronic Kidney Disease (CKD)	+
Diabetes Insipidus	
Glomerular Diseases	+
Heart Disease	
Henoch-Schönlein Purpura	
High Blood Pressure	+

www.niddk.nih.gov/health-information/health-communication-programs/nkdep

Health Communication Programs

National Diabetes Education Program +

National Kidney Disease Education Program -

- Identify & Manage Patients
- Laboratory Evaluation
- Get Involved
- Working Groups
- About NKDEP

Weight-control Information Network +

NIDDK Information Clearinghouses

National Kidney Disease Education Program

Improving the understanding, detection, and management of kidney disease. Learn more about NKDEP.



NKDEP Patient Resources

Browse all patient education materials from NKDEP.

- [View Patient Resources in English](#)
- [View Patient Resources in Spanish](#)



NKDEP Professional Resources

Browse all clinical resources and outreach materials from NKDEP.

- [View Clinical Resources](#)
- [View Outreach Materials](#)

Identify & Manage Patients

- [Identify and Evaluate Patients with CKD](#)
- [Manage Patients with CKD](#)
- [Training for CDEs, RDs, and PharmDs](#)

GFR Calculators

- [MDRD for Adults \(Conventional Units\)](#)
- [MDRD for Adults \(SI Units\)](#)
- [CKD-EPI for Adults \(Conventional Units\)](#)
- [CKD-EPI for Adults \(SI Units\)](#)

CKD & Nutrition

CKD Nutrition Management Training Program

CKD & Nutrition for Dietetic Educators

Chronic Kidney Disease Nutrition Management Training Program

NKDEP has developed Chronic Kidney Disease Nutrition Management, a series of five training modules that use engaging activities and case studies to prepare registered dietitians (RDs) for counselling patients who have chronic kidney disease (CKD). Each module focuses on a specific area of nutrition management for kidney disease patients, including background information on CKD, slowing the progression of CKD, CKD complications, the CKD "diet," and the transition from CKD to kidney failure. The modules also demonstrate how NKDEP's free resources can be used to counsel patients with CKD.

You can also earn continuing professional education credits (CPE) through the Academy of Nutrition and Dietetics with NKDEP's five training modules on CKD nutrition management.

Instructions for use:
The modules are available for download in read-only PowerPoint format. When you open the files, a pop-up box will appear. To view the module content, please click on 'Read Only' in the pop-up box. You will not be able to make any edits to the presentations.

nephcure.org

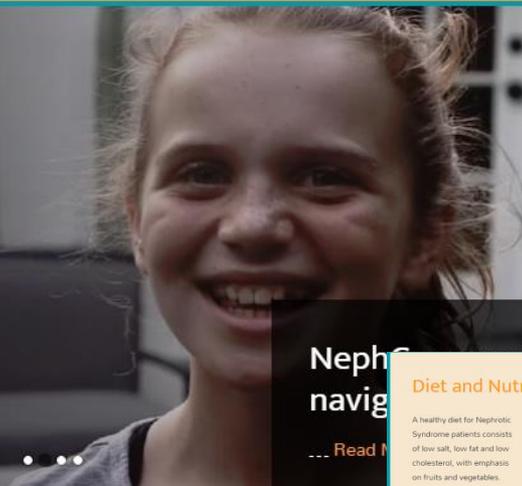


NEPHCURE®
 Kidney International

 Saving Kidneys • Saving Lives

SIGN UP
WITH NEPHCURE

[LIVING WITH KIDNEY DISEASE](#)
 [PATIENT CONNECTIONS](#)
 [EVENTS](#)
 [GET INVOLVED](#)
 [RESEARCH](#)
 [RECENT NEWS](#)
 [ABOUT US](#)
 [DONATE](#)



NEPHROTIC SYNDROME, MINIMAL CHANGE, OR FSGS DIAGNOSIS?

NEPHCURE CAN HELP.

WATCH OUR VIDEOS TO LEARN MORE

Diet and Nutrition

A healthy diet for Nephrotic Syndrome patients consists of low salt, low fat and low cholesterol, with emphasis on fruits and vegetables.

NOTE: The amount of protein and fluid a patient with Nephrotic Syndrome should have depends on the patient's current condition, age and weight. It is very important that a nephrologist and/or a renal dietitian be consulted. This fact sheet is meant to be used as a resource and is not meant to replace medical advice. Also, this is NOT geared towards those experiencing dialysis or transplant.



LIVING WITH KIDNEY DISEASE
 Just for Kids!
 Understanding Kidney Disease
 Understanding Nephrotic Syndrome and Glomerular Disease
 Treatment Options
 Diet and Nutrition
 Shopping Tips
 Recipes
 Renal Diet
 Gluten Free Diet
 Managing Your Care
 Educational Programs
 End Stage Renal Disease
 Proteinuria Resource Center

Patient Resources/Sites:

Kidney.org – NKF- patient tab

Rsnhope.org – Renal Support Network

Books/Booklets:

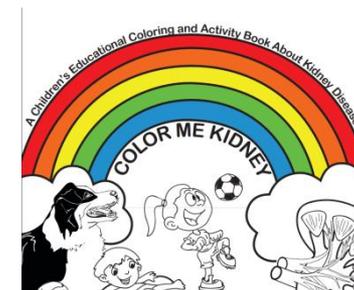
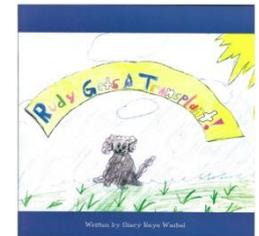
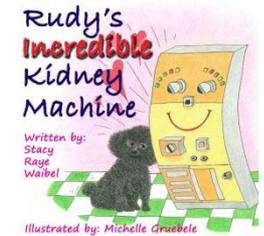
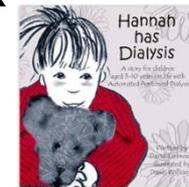
Rudy's Incredible Kidney Machine

Rudy Gets a Transplant

Melsy takes Dialysis to show and tell

Hannah has Dialysis

Color Me Kidney



Google and Youtube: what do kidneys do?

[Facts About Your Kidneys Video - WebMD](https://www.webmd.com)
<https://www.webmd.com> > A to Z Guides > Videos
 May 16, 2018
 Your kidneys are like a janitor and a cardiologist all in one. What else does this amazing organ do?
 0:52

[Kidney Lesson for Kids: Function & Facts - Video & Lesson Transcript ...](https://study.com/academy/lesson/kidney-lesson-for-kids-function-facts.html)
<https://study.com/academy/lesson/kidney-lesson-for-kids-function-facts.html>
 Sep 3, 2017 - Uploaded by The Study.com Video Team
What Do Kidneys Do? Kidneys have many functions, but there are four that are the most important. For one ...
 3:03

[Chronic kidney disease - Symptoms and causes - Mayo Clinic](https://www.mayoclinic.org/diseases-conditions/chronic-kidney-disease/.../sync-20354521)
<https://www.mayoclinic.org/diseases-conditions/chronic-kidney-disease/.../sync-20354521>
 Mar 8, 2018
 Chronic kidney disease — Learn about kidney failure symptoms, tests, diagnosis and ... Mayo Clinic does not ...


Stay up to date on results for *what do kidneys do?*



 1 2 3 4 5 6 7 8 9 10 Next



Grocery shopping
Choose Fresh or frozen fruits and Vegetables
 Foods with only a few ingredients
Caution Dairy
 Foods made with a lot of baking powder
 Dark-colored cola

Finding Phos: Managing Phosphorous Inta...
 8 months ago

Evolution of malnutrition in Pediatric CKD


 Wang (2008), Kellerman-Zadeh (2005), Schwartz (2007), Natchoo (2008), Foster (2012)

The Evolution and Management of Malnutrit...
 10 months ago

Impact of Disease

Congenital	Acquisitional	Other
<ul style="list-style-type: none"> May need to increase sodium¹¹ Avoid purposefully introducing high sodium foods for long-term diet needs Potassium and calcium may need modification Often high fluid needs, but may decrease as GFR decreases 	<ul style="list-style-type: none"> Nephrotic syndrome may accompany <ul style="list-style-type: none"> high protein losses tight sodium control 	<ul style="list-style-type: none"> HUS or atypical HUS, genetic disorders <ul style="list-style-type: none"> tight sodium, potassium and often phosphorus control tight fluid control Disease specific needs may need individual assessment

Optimizing Enteral Nutrition Regimens for t...
 1 year ago

CHOOSE MY PLATE with CHRONIC KIDNEY DISEASE

e24

PROSCLA

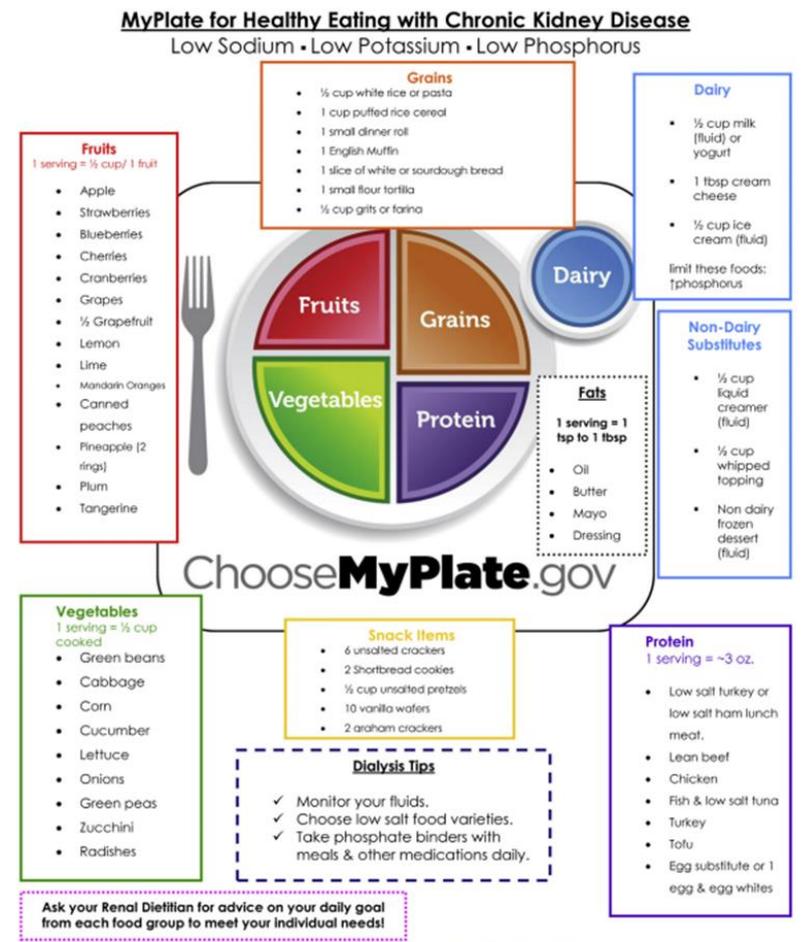


Figure 1. MyPlate handout for healthy eating with chronic kidney disease.

- Recipes
 - www.Kidneygrub.com (patient tab)
 - www.kidneyrd.com (patient tab)
 - www.kidneycommunitykitchen.ca
 - www.ultracare-dialysis.com/RecipeCenter.aspx (RD and chef)
 - www.davita.com (600 recipes with nutrient profiles)
 - www.myspiceitup.ca (great visuals with nutrient info)
- Free Downloads
 - www.dciinc.org/recipes/
 - www.kidney.org/sites/default/files/docs/kidney_cookbook_lr.pdf
 - www.kidney.org.uk/documentlibrary/food_with_thought.pdf
- Videos
 - <https://www.youtube.com/user/BCRenalAgency>
 - <http://www.bcrenalagency.ca/health-info/managing-my-care/diet>

Nutrition Apps for Managing Chronic Kidney Disease

MyFoodCoach®

Available for Free: Apple, Android
 Summary: Created by the National Kidney Foundation to help you manage personalized nutritional goals. It offers nutrition information, recipes, ingredients, and full meal plans designated for patients with diabetes, CKD, and hypertension.

Link: <https://www.kidney.org/apps/patients/my-food-coach-app>

Fooducate®

Available for Free: Apple, Android
 Summary: Records food intake, activity, sleep, and mood. This app keeps track of calories, protein, sodium, fat, and more. View your progress and stay motivated by connecting with friends and community for support.

Link: <https://www.fooducate.com/>

Mango Health®

Available for Free: Apple, Android

Summary: This app allows you to manage your medications and create a schedule of healthy habits. It provides medication information such as food or other drug interactions. You can earn points for compliance and potentially earn rewards.

Link: <https://www.mangohealth.com/>



ShopWell®

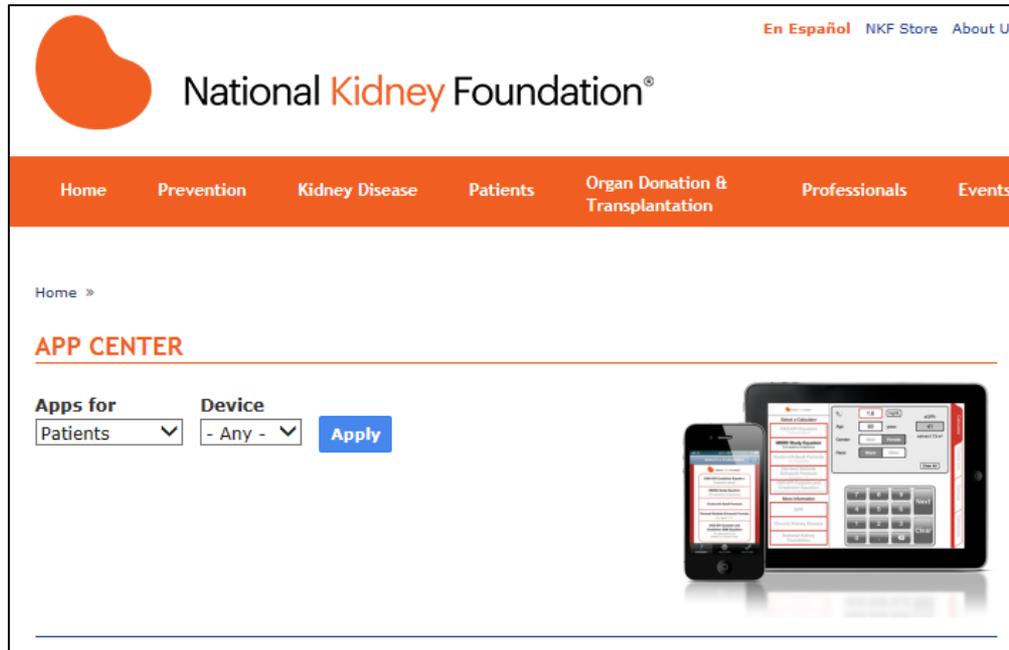
Available for Free: Apple, Android
 Summary: YottaMark, Inc. provides the ability to scan items to tell you ingredients of the foods you are purchasing. This app also offers suggestions of new items to try, helps identify food for certain diets or allergies, and includes an "Ask the RD" section. This can help you track sodium and other nutrients of concern while shopping.

Link: <http://www.shopwell.com/mobileapp>

H2Overload®

Available for Free: Apple
 Summary: National Kidney Foundation's app for management of fluid intake, weight, and blood pressure and provides education on these medical conditions. The app also contains an option to send your results to healthcare providers.

Link: <https://www.kidney.org/apps/H2Overload-app>



Evidenced
based?

Limited
market

Tube Feeding Awareness Foundation

www.feedingtubeawareness.org/

Feeding pump assistance

www.infinityfeedingpump.com/virtual-pump/

App: my tube feeding tracker



Delivering nutrition care in pediatric nephrology demands:

- that you have a solid understanding of pediatric nutrition as well as kidney related issues,
- that you keep an open mind and consider the many possibilities for solutions to problems,
- that you never stop learning!!!

Just the beginning!.....



...the sky's your limit!!!

Speaker Contact: Nonnie Polderman
npolderman@cw.bc.ca