



If your child, family, or other loved ones have been helped by this resource, please contribute to HelpChildHeal.org so more families continue to receive this **free**.

Healing children thank you.

SEE OUR WEBSITE

Because tired, stressed parents want a crash course in how to help their child heal, we "keep it simple, make it fast" (KISMIF). If you want to go deeper into the science and reasons behind what we recommend and read testimonies from parents and children, visit our online "office." We offer specific healing tips for special illnesses such as cancer, inflammation, asthma, and others for children needing hospital care. For more healing information, please consult: HelpChildHeal.org.

CONSULT YOUR DOCTOR FIRST

Because your child may have special healing needs, be sure to consult your child's doctor before doing any of the remedies advised in this guide.

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REVIEWERS' COMMENTS

This guide is a valuable resource for parents and children. All these tools do help kids heal faster.

Laryn Nolan, mother of a child who underwent 23 surgeries

Help Your Child Heal is filled with priceless information. Don't enter a hospital without it.

Paola Pederzoli, Nurse, Children's Hospital, Los Angeles

A WOW Book! The section on the healing power of music is so good.

Ethan Bortnick, age 9, National Television Concert Pianist

Dr. Sears' guide helped me and my family get our priorities straight and helped us all become healers, and it sure helped me heal faster.

Shane Dhillon, age 13, major contributor to this guide.

YOUR HEALING HELP, PLEASE

To continually update this guide and help children heal better, we need your suggestions and stories about how this guide helped you. Please input your comments on HelpChildHeal.org. There you can also enjoy our CMN blogs, where healers share their suggestions.

CONTENTS

CREDITS	TO	OHR	CONTR	IRUTARS	7
CKEDIIS	$1\mathbf{V}$	UUN	CUNIN	MDUIUNS)

MEET THE HEALING TEAM

NOTE FROM A "DR. MOM": ISHANI DHILLON

GETTING STARTED: WHAT EVERY HEALER MUST KNOW

TOOL #1: BECOMING DR. MOM AND DR. DAD

TOOL #2: FEED YOUR CHILD HEALING FOODS

TOOL #3: KEEP "STICKY STUFF" (ANTI-MEDICINES, ANTI-HEALERS) OUT OF YOUR

CHILD'S BODY

TOOL #4: HUMOR HEALS: LAUGHTER IS THE BEST MEDICINE – AND OTHER STRESS-BUSTERS

TOOL #5: HELP YOUR CHILD SELF-RELIEVE PAIN

TOOL #6: MOVEMENT IS GOOD MEDICINE

TOOL #7: HELP YOUR CHILD STAY LEAN

TOOL #8: HELP YOUR CHILD SLEEP AND HEAL

TOOL #9: ENJOY THE HELPER'S HIGH

SPECIAL SITUATIONS: PREPARING YOUR CHILD FOR SURGERY OR HOSPITALIZATION

THANKS TO THE "HELPERS"

Healing hugs to the sponsors who have heartfully contributed their wisdom and resources to help your child heal. Our wish is that they experience the *helper's high*, that priceless feeling that some child in some hospital is healing faster and more comfortably because of their contributions. Thank you:

- The Juice Plus+® Children's Foundation
- DrSearsWellnessInstitute.org
- Children's Miracle Network
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- Debbie Maze, professional illustrator of the Chronicles of Narnia series and the Sears
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Kudos to the Kid Contributors:

Shane Dhillon

Devan Dhillon

Ethan Bortnick

Lindsey Brook

Throughout this resource we sprinkle kid quotes and parent quotes that reflect what they felt and did. Write your own memorable phrases in the blank spaces throughout this guide.

MEET THE HEALING TEAM

William Sears, M.D., editor. Dr. Sears, or "Dr. Bill" as his little patients call him, has been helping children heal for over 40 years. His healing training includes practicing at Harvard Medical School's Children's Hospital in Boston; at The Hospital for Sick Children in Toronto, the largest children's hospital in the world, where he served as associate ward chief of the newborn intensive care unit; and serving as chief of pediatrics at Toronto Western Hospital, a teaching hospital at the University of Toronto. Dr. Bill has served as a volunteer pediatric professor at the University of Toronto, University of South Carolina, University of Southern California, and University of California, Irvine. As a "show me the science" doctor, Dr. Bill has made sure all the healing advice in this guide is supported by science and the medical experience of trusted healers. He is the father of eight children, author of forty-two books and still practices healing his little patients at Sears Family Pediatrics in Dana Point, CA. Dr. Sears thanks the following contributors and reviewers:

<u>Vincent Fortanasce, M.D.</u>, Professor of Neurology, University of Southern California School of Medicine, Sports Medicine specialist and author of *Life's Lessons from Little League*.

<u>David Katz, M.D.</u>, Director, Yale University Prevention Research Center, Griffin Hospital.

<u>Louis Ignarro</u>, Ph.D., Nobel Laureate, for his scientific discoveries of how the body makes its own medicine.

<u>Suzy Cohen, R.Ph.</u>, Pharmacist, author and expert in healing drug interactions and how nutraceuticals enhance the effects of pharmaceuticals.

Besides these contributors, Children's Miracle Network wishes to thank the many parents, children, doctors, nurses, and therapists who contributed their suggestions to this guide.

A NOTE FROM A "DR. MOM": ISHANI DHILLON

As my 11-year-old son, Shane, was wheeled into the emergency room and from there into the operating room, my mind raced with mother-nurse thoughts: "What can we do to help our child heal?" This book gave me the answers. It became our parents' manual, empowering and equipping us to be helpful healers alongside Shane's team of doctors.



Not only did these tools help Shane heal, they helped us cope. My husband, Micky, and I no longer felt helpless. I felt some inner maternal radar system click on. An inner voice prompted me to adjust Shane's pillows, dim the lights, decorate his hospital room, and give him those therapeutic touches that parents know best.

As a result, Shane's healing from a serious boating accident went twice as fast as expected and he experienced few complications. As our son healed, our family bonded, and we all came through the experience wiser about how wonderfully the body is made to heal, and how we can help.

We wish you good reading and good healing!

GETTING STARTED: WHAT EVERY HEALER MUST KNOW

Welcome to your crash course in helping your child heal. Imagine you are entering a hospital with your child and the admitting nurse greets you: "Here's your personal doctor's bag, full of tools to help your child heal. It contains different tools than the doctors have in their bags, but they are just as important." This book is your toolbox to help your child heal.

You will learn:

- Parental tools to enhance healing, or "healers"
- Ways to reduce painful complications, or "hurters"
- How to turn tools for healing into lessons for life

You can do that!

SWEET HEALING HOME

Depending on your child's illness and length of hospital stay, most of these healing tips can be used while in the hospital and then continued *at home*.

Learning MOM. Built into the human body, especially that of a growing child, is a personal healing pharmacy. MOM is your way of remembering a central theme of this book: *M*ake Your *Own Medicine*, or more specifically, helping your child's body make its own internal healing medicines. Let's get started.

Help your child's body make its own medicines. A major theme of this guide is that your child's body can make many of its own internal medicines (MOM). You will learn what these medicines are, where in your child's body these medicines are produced, and what you can do to

help your child muster up his or her own internal medicines. The MOM section of this book is where the newest and most exciting scientific research lies. In fact, some of the MOM you will learn actually won the Nobel Prize.

Helping your child heal has a carryover effect. By empowering your children with tools that help them muster up their own medicines, the whole family ultimately becomes healthier because these tools can be used to prevent many illnesses, such as cardiovascular disease and diabetes. Helping your child heal from this present accident or illness will actually help your child live happier, healthier, and longer. The toolbox your child assembles to heal also becomes a toolbox for life.



TOOL #1: BECOME DR. MOM AND DR. DAD

You are about to earn your honorary medical degree in helping your child heal. Remember those times when your toddler pleaded, "Mommy, make it feel better?" You put the boo-boo bunny on the sore spot. Parents, you are the most important members of your child's medical team. What every child wants first in a healer is *familiarity* and *trust*. You have both. Love for your hurting child inspires you to help your child heal! Yet you may feel scared, helpless, unequipped, and left out of the medical team assigned to give your child the best possible care. We will help you handle these normal feelings by equipping you with tools to help your child heal. The role you play in the drama of your child's healing can only be played by a parent.

Be confident. Mother and father know best. You already have a built-in radar system tuned into your child: it is called *parental sensitivity*. While the doctors are getting to know your child, you already do. Be confident in your abilities. There will be times when you "just know" what your child needs, such as a change of position, a change in medication, or subtle changes like dimming the lights. You will see and sense little things that add up to have a major influence on both how your child feels and how he heals.

I loved how my mom would never ignore anything I said and how she would always fix exactly what was bothering me, whether it was a big thing like a change in medication or a little thing like adjusting my leg pillows.

Be your child's bedside monitor. Parents, become keen observers and accurate reporters. There will be days when you are your child's bedside nurse 24/7. The doctor may visit only a short time each day; and while the nurses will be there more, these professional healers on your child's medical team rely on your observations. Keep your own "nurse's log" of what works and what doesn't. Fatigue and normal parental anxiety may fog your memory of the day's and night's events. So, write them down. You are likely to need them later.

I loved when my family was with me. It made me feel safe.

Opening and closing the hospital room door startled my child, so I taped a washcloth on the doorjamb to mute the sound.

The medicine my child took this morning made her nauseated, but the new medicine worked better...

My mom had a whole 200-page notebook filled with many tiny things that happened in the hospital, kind of like a diary.

Be your child's advocate. Many of the medical staff are parents themselves. They will have a wide acceptance and empathy for your needs, anxieties, and perceptive suggestions. Feel free to offer caring advice that will help your child heal: "My child seems more comfortable when you..." For example, nurses change shifts. You will want to share with the night-shift nurses the caregiving tips that worked well that day. Your hurting child needs you to speak out and translate to the medical staff the language of need that only a parent can understand. Be the best bedside parent you can be.

The nurses learned to really trust us, because they knew that it would help them if they listened to what we told them about how to help our son.

FEELING S-T-R-E-T-C-H-E-D?

When children develop special medical needs they stretch even the most resilient of parents. You will be called upon to learn a language of caring you never had before. You will develop special skills and medical knowledge on your way to earning your honorary degree as Dr. Mom and Dr. Dad. You will become a wiser and more empathetic person on the way to helping your child heal. And these skills will carry over to making you a richer person in life skills, in the family and on the job.

On the other hand, you can feel stretched like a rubber band nearing its breaking point. Before you snap, seek help, and take turns whenever you can. Remember, in order to heal, your child needs *happy, rested* parents. When you are feeling overwhelmed, ask a trusted family member or friend to come in and be with your child for a few hours so you can have a break.

I found I could better help my child if I sometimes went home, took a shower, and slept in my own bed.

Be your child's pain reliever. Comfort helps healing. Pain hinders healing. While your child may need pain-relieving medicines, there is no pharmaceutical that pre-empts parental touch. While pain medicines are safe and effective, some children react differently to different dosages and many drugs have intestinal and behavioral side effects. In fact, we doctors say, "The more parental medicine a child gets, the less pharmaceutical drugs we need to prescribe." (See Parents as Pain Relievers, page 62).

It felt so good when my dad rubbed my sore leg.

Be a clown. While the last role you may feel like performing is one of entertainer, laughter is often the best medicine. You know what makes your child smile. In fact, the smiling face of a loving parent or sibling or friend may be just what the doctor ordered when your child awakens with worries. (See Tool #4: Laughter is the Best Medicine).

My brother was really good at being the "clown." It makes me laugh just thinking about the stuff he did and said.

Be peaceful and positive. Body language mirrors thoughts. Your child can sense what you think. Your child needs you to reflect an, "It's okay...you'll be fine...you're going to get better..." attitude (even if you sometimes have to fake it). One of the great mysteries of medicine is how the mind influences healing. A child who believes he will heal – and continually hears

this healing thought from his caregivers – is more likely to heal (see Parents as Pain Relievers, page 62). Dr. Mom and Dad's orders: only positive vibes, please.

Never show worry and stress, especially during big moments, like if your child is about to go into surgery. Trust me, the patient is already stressed out as it is, and having someone panicking in the room doesn't help. It really helped when my parents said, "You will be fine and we'll be here to hug you after the doctors fix your leg."

Help your helpers. You're likely to be deluged with everybody wanting to help you. Yet, helpers are at a disadvantage because they don't always know when they're helping and when they're interfering. If you need a friend to help you, tell them *exactly what you need*. Helpers who love your child will get more than they give. They get the priceless gift of the "helper's high," that good feeling you get by helping someone else feel better. For example, if someone comes over and you're tired of massaging your child's leg, or tired of reading stories, ask, "Would you mind taking over here while I take a short nap?"

Never be embarrassed to speak up. I have his medical history condensed on our computer, and

print out a copy and give it to the medical staff every time he is hospitalized.

Be your child's room

decorator. Familiarity fosters healing. Bring your child's favorite toys – and some novel ones – into the hospital room. Display favorite trophies and pictures. These props help



distract your child's mind from her hurts.

Doctor Mother Nature heals. Place photos of your child playing outdoors, such as playing soccer or swimming. If possible, turn your child's bed or chair toward the window. Neuroscience research shows that patients whose beds faced a window healed faster.

When I awoke the first thing I saw was my soccer trophy. I focused on our last winning game. It helped me forget my tummy ache.

HOW TO GET THE MOST OUT OF THERAPISTS

As your child is healing she may need a variety of therapists, such as physical therapists (PT), occupational therapists (OT), or psychotherapists. Here's how to best use your time with the therapist.

You become the therapist. Suppose your child is healing from an accident or operation and needs outpatient physical therapy a couple times a week for many months. That's a lot of time spent in cars, waiting rooms, and other precious downtimes that could be better spent if you became your child's own *home therapist*. Therapy on children is mood dependent. Say your appointment is at 4 p.m. Your child is tired, hungry, and just not in the mood to pay attention – then this is partially wasted, precious time. Yet, at home you can do the "therapy" at a time when you sense your child is in the mood to be relaxed, flexed, stretched, or whatever his mind or body may need.

On your first visit explain to the therapist your reasons for wanting to do home therapy (e.g., time and money management). Ask the therapist to teach you a crash course in the therapy. Ask lots of questions and take notes. Take out your smart phone and record the techniques. It's okay to be assertive in this role reversal of parent becoming therapist and therapist becoming teacher/consultant. Expect to need periodic in-office refresher courses as the type of therapy changes to fit your child's progress.

Be compassionate. Here's where Dr. Mom and Dr. Dad shine. From the moment you birthed your baby your natural *compassion* dial turned up. (Compassion means "feel with.") When

needed, get behind the eyes of your child and ask yourself, "If I were my hurting child, what would I want my healer to say or do?"

I brought in a bag I called my Hospital Survival Kit: a notebook, pen, iPad, mints, hand sanitizer, healthy and tasty snacks, and surprise treats for my child. Never leave home without it!

Be informed. Ask about medications, procedures, tests, monitors. The more you understand, the less you'll worry, and the more you'll contribute to your child's healing. If you don't understand the doctor's explanation or instructions, say so: "Doctor...I don't understand...would you please go over that again?" or "So we need to do...because?"

Be your child's nutrition nurse. There is a category of medicine that only parents can provide. Remember, "food" was one of the earliest "medicines" prescribed by doctors; and no one makes healing foods like mom, or grandma. In Tool #2 (page 17) you will learn what the best healing foods are and creative ways to present them.

TEACH ME MORE!

When compiling this resource, parents of healing children advised us: "Just tell us what to do. That's all we have time for. The details, reasons, and research can come later".

Learn updates. If you wish a "second helping" of why a certain tool works, want scientific references supporting our advice, or want to find new ideas that have come along, see: www.AskDrSears.com/HelpHeal.

Show me the science! Parents, your deep love and compassion to help your child heal naturally make you vulnerable to unproven and possibly unsafe remedies. Ads may tout healing promises. Well-meaning friends may shower you with their personal fix-it tips. You may feel both overwhelmed and confused by which of these ideas or therapies might help your child heal. Because you are willing to "try anything" that promises to help your child, you may waste time, energy, and money that could be better used on more proven healers. Throughout this book we will suggest tools that are right for your child. Because your child deserves the best, this is our promise to you: All the remedies we recommend in this book are based on medical science and decades of hands-on healing.

HOW TO TRIAGE VISITORS

Dr. Mom and Dr. Dad are the best monitors for visitors: who may visit, when, and how to help. Visitors usually make the patient feel more cared for.

- Never feel embarrassed to say no to visitors. They will understand.
- Ask your child which friend he would most like to see.
- Be mindful of your child's sensitivities at the moment. If your child is not in the mood to receive visitors, respect those wishes.
- Encourage visitors to bring in a gift, big or small, even a gag gift.
- Never awaken a sleeping child to greet the visitors. When your child awakens let him know the visitor came.
- Like feedings, short and frequent visits are best.
- Prompt all visitors to carry on the healing theme: "Only positive vibes please."

UNDERSTAND HOW THE BODY HEALS

Depending on how your child's organs or tissues are hurt by whatever cause, such as infection, cancer, trauma, or if your child is recovering from major surgery, much of your child's medical care will focus on helping tissues heal and grow. Here's what every parent must know: Wound Healing 101.

Children's tissues heal faster. You will be amazed how fast your child heals. Younger tissue repairs itself much more quickly than older tissue. For tissues to heal better and hurt less, they need:

- Nutrients to repair and grow
- Adequate blood flow to deliver these nutrients
- A strong immune system to prevent and fight infection
- Avoidance of "anti-medicines": toxic chemicals in foods, environment, or thoughts that hinder healing

Parents as healers can shine in all four of these ways. You will soon have the tools to do so.

Get to know the repair crew. Imagine your child's injured tissues are like a highway that is undergoing reconstruction and you are the superintendent. What workers do you need in those tissues? How will you feed the workers so they do their best job? You also need to keep away toxins that cause more highway damage while it's undergoing repair. Finally, as the tissues heal you need a self-maintenance crew that automatically works 24/7 to keep the road in perfect shape.

Feed the repair crew. To muster up the basic building materials for healing tissues, you need:

- *Proteins*, like steel and brick in a building, provide the basic structure of the tissue.
- *Healthy fats* provide nutrients for healthier cell membranes.
- *Healthy carbs* provide energy for the workmen while they mold all these nutrients together.
- Vital Vitamins and Mighty Minerals help repair healing tissues.
- *Antioxidants* act like anti-wear and tear and anti-rust medicines to help tissues stay healed and strong.
- Finally, you want to protect the security crew that police the highway to keep out intruders. This is why you need to strengthen your child's natural *immune system* to both hasten healing and keep out toxins and germs that delay healing.

Now that you understand what's needed for tissues to heal, here's how you can help.

CONSULT YOUR DOCTOR FIRST

Though unlikely, some foods may interfere with medications. It is wise to first consult your doctor before feeding your child certain foods or supplements while healing.

TOOL #2: FEED YOUR CHILD HEALING FOODS

You will spend more time feeding your child than you will in any other healing interaction. Parents can do it better than anyone else.

Healing Foods. Call them "grow foods." The term "healing foods" probably won't motivate your child, but every child wants to "grow" bigger and stronger. Or use whatever motivating tag your child is into that year: "football foods," "smart foods," "cheerleading foods," and so on. Say your child wants to heal faster to get back to playing soccer. Call them "soccer foods." Yet, you may be surprised, a child who has undergone multiple surgeries or hospitalizations may happily relate to "healing foods."

A "healing food" enjoys these nutritional qualities:

- Rich in the tissue healers and builders listed on the previous page.
- Easy to digest. Because your child's intestines may be a bit "picky," especially after anesthesia, surgery, or trauma, we have chosen "tummy friendly" foods that children enjoy.
- Supports a healthy immune system to enhance healing and fight infection.
- Stabilizes blood sugar, which enhances healing and emotional well-being.
- Free of "anti-medicines," chemical additives that delay healing.

THE SIX-S HEALING DIET

These food categories and ways of eating will make up around 90 percent of your child's healing diet. Actually, these food categories should make up 90 percent of the diet of every child needing to grow a healthy mind and body, yet for a child who needs to heal these are a must:

- Smoothies
- Salads
- Seafood
- Supplements, supported by science

Spices

• Snack on healing foods: go nuts!

SMOOTHIES

Children love smoothies. Healing children need smoothies. Parents, make delicious, nutritious smoothies – a perfect healing prescription that you make in your home pharmacy.

Smoothies are easier to digest. Blended foods are naturally easier to digest because the blender does the work that the upset tummy often can't do.

Smoothies are especially soothing to a child recovering from anesthesia or major surgery, procedures which often slow digestion and require medications that upset digestion. Because blended



foods are absorbed better through post-operative guts, more of these healing nutrients can get into your child's bloodstream. Smoothies also lessen heartburn, or reflux, a common digestive nuisance following surgery. Because sipped food enters the stomach slowly, and blended food exits more quickly from the stomach, there is less left over to reflux.

Smoothies are natural laxatives. Another reason why smoothies are smart is they slide through the twenty-something feet of intestines in a more friendly way. Liquid food passes more quickly through sluggish intestines, an important healing feature for intestines that often go on strike after major surgery or as a side effect of necessary medications.

Smoothies soothe. Many illnesses and operations are "a pain in the gut." Smoothies give your child good gut feelings rather than the painful gut feelings that often occur after major surgery or during healing from a major illness. The intestinal tract is one of the most sensitive organs in the body. By helping your child get good gut feelings, you help your child heal. Remember: comfort hastens healing, discomfort hinders healing.

I called my smoothie my "soothie."

Most of the body's natural *happy and healing hormones* come from the gut. Following some illnesses or surgeries this internal gut pharmacy partially closes. What and how you feed the hypersensitive gut can keep this internal intestinal pharmacy open to release just the right medicines (e.g., feel-good and fight-germs medicines) in the right dose, custom-made just for your child.

Dr. Bill's tip: Over the past fifteen years in my medical practice, I have been "prescribing" smoothies for children who are recovering from major surgery, healing from a major intestinal disorder, and children who just need to get more healing nutrients into their system. I call it "the sipping solution," and it really works.

Parents love to make smoothies for their child because it helps them take an active part in their child's healing. Children love it because it's familiar food and it's easier on the gut. And, it's a sneaky way to get more healing nutrients into an already picky eater who may become even pickier during recovery. In our experience of helping parents help their children heal, the "sipping solution" ranks high on the list of favorite "prescriptions."

Smoothies boost immunity. Remember what your mom always said: "Put more color on your plate!" Smoothies are full of phytos, a term you will learn about later: those colorful red, green, blue, purple, orange, and yellow foods that are loaded with immune-supporting nutrients that feed the infection-fighting maintenance crew that helps your child heal.

Smoothies stabilize blood sugar. The more stable the blood sugar and blood insulin levels, the faster and more comfortably your child heals. Sipping on a smoothie is one of the best ways to keep your child's blood sugar stable. If blood sugar is too high, it can delay healing. If it is too

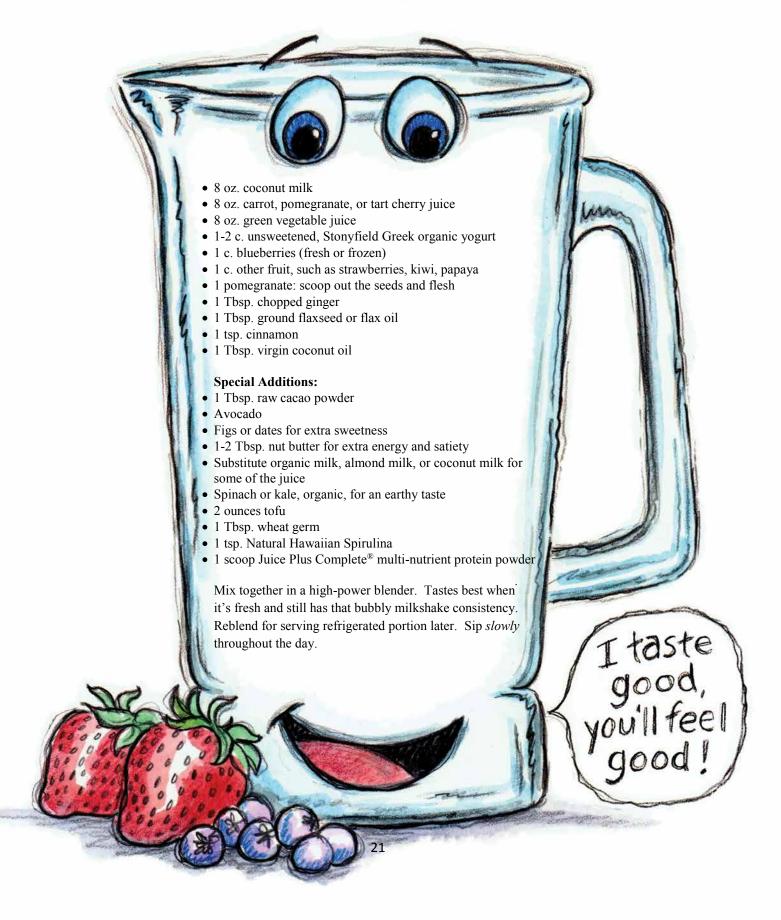
low, your child's tissues do not get enough fuel to heal. The sipping solution keeps the blood sugar just right.

Smoothies can be custom-made for your child. During your child's healing, the gut may be ultrasensitive immediately following major surgery or during the most intense part of the healing process. So, initially, as the healing gut is getting used to this new way of eating, use the same principle that doctors use in prescribing a new drug: *start low and go slow*. Choose ingredients from the recipe below that you know your child likes. Start with a *few sips* and gradually increase the volume as the healing gut tolerates. During this gut-sensitive stage, only feed foods to your child that you know are gut-friendly.

Smoothies shape young tastes. Smoothies are a way of gradually sneaking in healing foods that your child needs, but shuns, such as spinach and kale. By gradually adding more and more of the healing foods to your child's diet, you gradually *shape your child's tastes* toward craving, rather than refusing, these healing foods. After a few weeks of eating these healing foods, your child's gut wisdom clicks in as if to say, "I need these foods. I will like these foods. Feed me more."

Smoothies enjoy synergy. A nutritional principle we want every parent to appreciate is the concept of *food synergy*, which means giving your child a whole team of healers that will heal better than each one would individually. Putting foods of different colors on a child's plate, such as several different vegetables in a salad, or blending several foods in a smoothie, boosts the healing powers of each individual food. If these foods could talk they would say, "We play better as a team." Be sure to add healthy fats (nut butters, coconut oil, avocado). Fats help your child feel fuller longer and increase the intestinal absorption of many nutrients.

Dr. Bill's Healing Smoothie



Smoothie's Nutritional Breakdown: The exact nutrient values depend on your special additions. It's a perfect balance of around 25 percent protein, 20-25 percent healthy fats, and 50-55 percent healthy carbs. Remember, this recipe is an adult's calorie equivalent to *two meals* and *two snacks*.

Calories: 1,000–1,200 (Small children may need less)

Protein: 50-70 grams (Aim for a gram per pound of weight per day)

Fat: 20-30 grams
Carbs: 120-150 grams
Fiber: 25-30 grams
Calcium: 800-1,000 mg
Vitamin C: 200-300 mg

Antioxidants: at least 10,000 ORAC units (a measure of immune support) – double the

minimum recommended level

Dr. Bill's Rx: Parents, actually this is my personal healing recipe which I developed in 1997 following my own major surgery and prolonged healing. I chose this smoothie based upon three healing criteria:

- Each food had to have scientifically proven healing properties.
- Each food had to be easy to digest and give good gut feelings.
- The food had to taste good, since human nature is such that if it doesn't taste good, we won't continue to drink it.

Even foods I wasn't fond of started tasting better because my brain had convinced my gut, "You need these healing foods, so you'd better learn to like them." I did!

Over the years of helping children heal I would visit my patients after surgery, explain to parents the smoothie recipe and why it will help their child heal, and they were overjoyed that they could actually do something to help. Many parents would bring in homemade smoothies for their healing child to sip on all day long. Some would actually bring the blender and the ingredients into the child's hospital room. I had to warn the nurses that when they heard the whirring sound

of the blender that the parents were mixing up "medicine" to help their child heal. Often just seeing mom make the smoothie triggered good gut feelings in the child.

I started feeling better when I heard the blender going.

Berry good healer. It just so happens that one of the most nutrient-rich healing foods is one kids usually like – blueberries. Dubbed "the brain berry," these little fruits promote nerve function, balance inflammation and support the immune system.

(For more special additions and creative ways that parents have customized their smoothies, and for children who require tube feeding or the blended food diet, see

AskDrSears.com/SmoothieRecipes.)

SUPERHEALING SMOOTHIE

Here's a breakdown of the healing "medicines" in each of the suggested ingredients, so you can value how they heal.

<u>Ingredient</u>	Healing Nutrients
• Yogurt	Protein: Greek-style, higherCalcium for bone healing
	 Probiotics: support immunity, digestion
• Juices	Antioxidants (immune boosters)
Blueberries	Promote nerve healing
Kiwis, strawberries, papaya	Vitamin C, fiber: support immunity
Pomegranate	Powerful inflammation balancer
Ginger	Tummy settler, digestive aid
• Tofu	Protein, calcium
• Flaxseeds	Omega 3s, protein, fiber, antioxidants
Wheat germ	Vitamin E, protein, folate
Cinnamon	Anti-inflammatory, stabilizes blood sugar
Nut butters	Protein and healthy fats; promote satiety
Figs, dates, raisins	Natural sweeteners
Spinach, kale	Green taste-shaping, folate
Spirulina	Rich source of healing nutrients
Coconut oil, virgin	Anti-inflammatory

SEAFOOD



Equally as healing as smoothies, but often not as appetizing to kids, is seafood. Here's how "go fish!" heals.

DR. BILL'S RX

The top healing food for people of all ages is wild salmon, 3-6 ounces, three times a week.

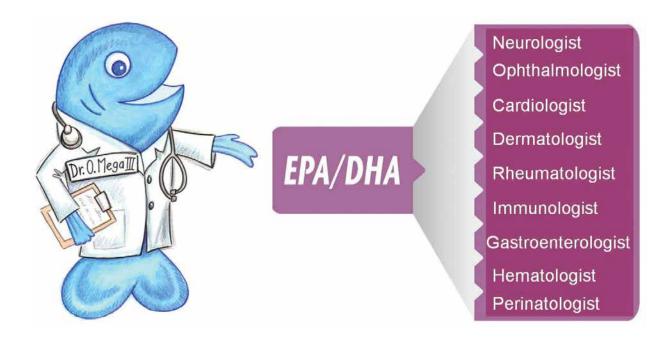
Salmon – The Super Healing Food. One serving of wild pacific salmon contains more healing nutrients per calorie than any other food. A typical 6-ounce fillet contains:

- 2,000 mg omega-3 oils, DHA and EPA.
- 6 mg of astaxanthin. This pink pigment in wild salmon is one of nature's most powerful antioxidants (germ-fighters and healing tissue protectors).
- 900 IU of vitamin D.
- 43 grams of protein.
- Rich source of other healing nutrients: vitamins B₁₂ and niacin, choline, and selenium.

PRETTY PINK HEALING PERK!

The pink color in wild salmon is a naturally-occurring antioxidant immune booster called *astaxanthin*. Salmon naturally produce this antioxidant powerhouse as they are building up their bodies and immune systems in preparation for the run for spawning. Hawaiian astaxanthin is available as a nutritional supplement if you have trouble eating enough salmon.

To further understand the healing effects of omega-3 oils in fish, imagine a partner and healer in pediatric practice, Dr. O. Mega III. Dr. O. Mega III is a neurologist to help brains heal, ophthalmologist to help eyes heal, cardiologist to help hearts heal, dermatologist to help skin heal, rheumatologist to help sore joints heal, and inflammation specialist to help all those "itis" illnesses heal.



How fish oil heals. If you and your child want to go deeper into how fish oils help heal, here's a science-made-simple, and fun, explanation: Let's meet Dr. O. Mega III as she prescribes little "Megs", medicines to heal various tissues. Children ages ten and above can read and understand what is written here and will translate it into their own language: "Hi, I'm Meg. Meg is actually

my nickname for omega-3s, which are a special type of healing fats. I'm a good fat. In fact, your tissues can't heal without me. And, your body doesn't make me. You have to eat me in fish or take me in fish oil supplements. I'm a VIP, a very important part of every cell and organ in your body. Many kids and adults don't heal because they don't eat enough of me. In fact, a Megdeficiency is the number one nutritional deficiency in North America. Let me now brag about how I can help you heal:

Meg helps cells heal. Because your tissue is the issue, here's some basic "tissue talk" you need to know. Your tissues and organs are only as healthy as each cell in them. Trillions of cells comprise every organ. Healing occurs by these cells growing stronger and multiplying rapidly to repair sick tissue and grow healthier tissues. That's why healing doctors preach, "You're only as healthy as each cell in your body." A cell is like a flexible bag full of nutrients. Inside each "bag" are millions of microscopic powerplants called mitochondria – think *mighty mitochondria*. They act like tiny "Energizer Bunnies" that provide energy for each cell to multiply, grow, and heal.

Each cell has a soft, flexible outer membrane or bag. This bag is very protective of the inner workings of the cell. Guess what these membranes are made of? Omega-3 fats, or Megs. Omegas are to the cells – especially brain cells – what calcium is to the bones. They form the structural and functional component of each cell membrane. To make this biochemical stuff even simpler, Meg is often called the "membrane molecule." Megs also feed brain-repair cells, called oligodendrocytes, that wrap around nerve fibers like bandages or like insulation on electrical

-Oligodendrocyte

Myelin

Omega 3s

Nerve Cell

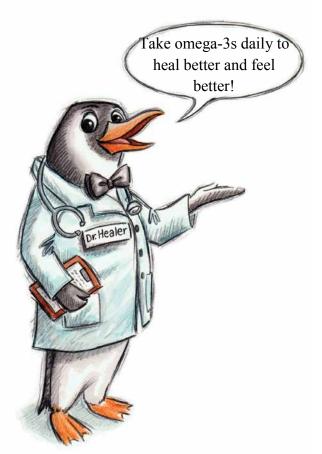
Nerve Cell Membrane

wires.

Meg helps brain tissue heal. Meg is called the "smart fat." The brain is 60 percent fatty tissue, and omega-3s are the top fat in this smart tissue. That's why pediatricians dub growing brains little "fatheads." Healing tissues need to grow new nerves.

The more Megs the child has in his brain, the better these nerves work and heal. In fact, the military is beginning to use high doses of omega-3 fish oils for treatment of traumatic brain injuries. (http://videocast.nih.gov/summary.asp?live=8107)

Meg makes happy hormones. Not only do omega-3 oils, especially DHA and EPA, help the body heal, they also help the brain heal. Meg is known as *the mood mellower*. While kids often handle hospitalizations better than adults do, it's normal for children to get stressed and depressed during a prolonged illness that robs them of their play. Because omega-3s facilitate release of mood-elevating hormones in the nervous system, Meg can boast: "I'm one of the safest and most scientifically-researched anti-depressants."



Meg is good for the eyes. Seafood is see-food. Since the motion picture screen of the eye, the retina, is actually part of the brain, it stands to reason what's good for the brain is good for the eyes. In fact, the retina is mostly fat, and the top retinal fats are omega-3s.

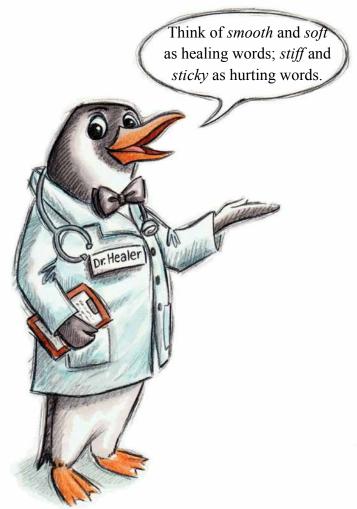
Meg helps blood flow to nourish healing tissues.

Remember, healing tissues need more blood flow to deliver the army of healers to where they are needed. First, Meg helps those tiny oxygen-carrying red blood cells (called RBCs), the healing white blood cells, and the rest of the blood to more quickly deliver needed oxygen and nutrients to the healing tissues. Here's how they do that. Omega-3s worm their way into the membranes of the blood cells, making them smoother. Omega-3s help the blood cells to behave like miniature

stingrays that assume a flat, flexible and slimy feel so they can swim faster and get to their destination, the healing tissues.

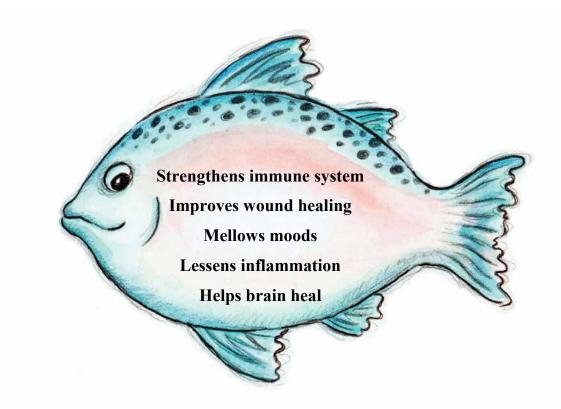
Besides keeping blood cells from sticking together and slowing down, omega-3s keep the lining of the blood vessels soft and smooth so blood can flow faster. A graphic way to remember how omega-3s behave in blood vessels, and to entice your child to "go fish!" is to picture blood flow like kids on a water slide. Turn the water on (eat more omega-3s) and the kids slide smoother and faster. Turn the water off (don't eat enough omega-3s) and the kids pile up and stick to the sides of the slide.





Dr. O. Mega III Prescribes: Fish Facts Every Healer Must Know

- *How much to eat?* Shoot for *at least* 600 mg of omega-3 EPA/DHA per day. This amount can be obtained by eating 6 oz. of wild salmon twice a week, or from high quality fish oil supplements.
- Wild salmon is one of the top "healing" fish.
- Minimum healing dose: *one child's fistful* of seafood at least twice a week.
- Fish oil supplements: Adults, *at least* 1000 mg (DHA mg + EPA mg added together to equal 1000 mg). Children 500 mg; infants 300 mg. For special illnesses and injuries, such as brain injuries, much higher doses may be prescribed by your doctor.
- For more science-based information on omega-3 doses and safe seafood, see my book
 The Omega-3 Effect, Little Brown, 2012. For recent safety updates, see
 AskDrSears.com/seafood.



Dr. Bill prescribes: "VitalChoice.com is my favorite online *pharma-sea*."

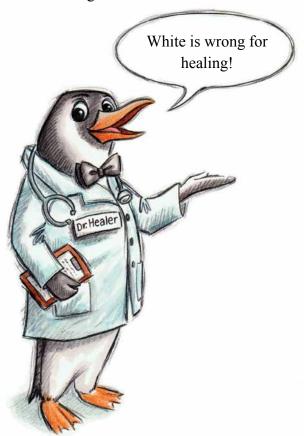
DR. MOTHER NATURE'S FARMACY: HEALING SUPERFOODS

We have listed the most nutrient-rich foods in order of priority, based on healing nutrients per calorie and also taste and texture preferred by most children.

<u>Superfood</u>	Nutrient Healer
 Wild salmon and other seafood (no shark or swordfish) 	Omega-3 fats, protein, vitamin D, astaxanthin
• Blueberries	Immune and nerve function health
Yogurt, organic, Greek-style	Protein, calcium, probiotics
• Nuts, nut butters	A top nutrient-dense food for picky eaters: protein, healthy fats, fiber, calcium
• Avocado	Most nutrient-rich fruit; healthy fats
• Eggs	Nutrient-rich, powerful proteins, B12, sleep-inducing nutrients
Oils: flax, virgin olive, virgin coconut; ground flax seeds and chia seeds	Omega 3s (not as good as seafood source), boosts immunity, colon health, fiber, stabilizes blood sugar
Greens: kale, spinach, Swiss chard, arugula, asparagus, broccoli	Folate; vitamins A,B,C,E,K; immune-support and vision-healing carotenoids; anti-cancer, tumor-taming nutrients
Spices: turmeric, black pepper, garlic, ginger, cinnamon Honorable mention: tofu, lentils, beans, pomegi	Turmeric is a top healing spice: anti-cancer and anti-inflammatory; cinnamon: stabilizes blood sugar; garlic: anti-inflammatory and anti-cancer.

(not "instant")

The "lows" slow healing. Especially during healing, unless advised otherwise by your doctor, discard "low fat" and "low carb" foods in favor of the *right* fat and *right* carb diets that promote healing.



One of the simplest, yet most scientific food tips is what your mom told you: "Put more color on your plate." We downgrade white bread to "air bread." It's so light because it has many nutrients processed out. Wild and brown rice is more nutritious than white rice. Darker chocolate is more nutritious than milk or white chocolate.

TRAFFIC-LIGHT EATING FOR HEALING				
Green-Light Foods: Go Healing!	Red-Light Foods: Stop Healing!			
The Six-S diet foods, page 17	"Hydrogenated"			
• All healing superfoods listed on page 31	High fructose corn syrup			
• Homemade healing treats, see page 38	• # symbols, e.g., red #40			
Trail mix, homemade	MSG and its aliases – hydrolyzed			
Sips and dips: smoothies, hummus,	protein, yeast extract			
guacamole, yogurt	Artificial sweeteners and flavoring			
	Chemically processed meat			
	Artificial gelatins			

SALADS

The first S – smoothies – is the easiest and most kid-accepted. The second S – seafood – is the most healing. Salads may require more creative marketing than the first two, and they may be easier to make after your child gets home, rather than while still in the hospital. Like smoothies, salads take advantage of the valuable healing nutritional perk: synergy. Like what happens when

you mix many fruits together in the smoothie, when you mix up lots of veggies into a salad, the nutrients in the vegetables become more powerful healers. Examples of food synergy to bring out the best in salads (and some warmer S's: soups, stews and stir-fries) are:

- oil) on vegetables to enhance the absorption of some vitamins and minerals from the vegetables.
- Dr. Super Salad
- The vitamin C in vegetables increases the absorption of iron.
- Sprinkle lemon or lime juice or balsamic vinegar to add an acidic touch to improve the intestinal absorption of some vitamins and minerals.

By learning all these nutriperks, you are becoming your child's nutrition nurse and learning: "How can my child get the most 'healing bang for the buck' from each nutrient?"

DR. BILL'S HEALING SUPERSALAD MEAL

4 oz. grilled salmon fillet

½ c. kidney beans

3 c. organic spinach

1 serving nori, chopped

½ tsp. turmeric

½ tsp. black pepper

½ c. chopped tomatoes

1 tbsp. raw sunflower seeds

1 tbsp. extra virgin olive oil or 1-2 tbsp. hummus for dressing

1 egg, hardboiled and sliced

lemon or lime juice

Arrange salad ingredients tastefully on a plate. Sprinkle with lemon or lime juice and enjoy.

This balanced-nutrition salad is so filling that your child may prefer to cut the recipe in half, eat it at two different meals, or graze on it throughout the afternoon. Or, parents, share it with your child.

MOM'S MENU

A sample dietary day in the life of a healing child:

- Breakfast, lunch: sip on smoothie all day
- Snacks: *nibble on nuts* or homemade trail mix (tell the child, "Go Nuts!")
- Dinner: savor a supersalad

SPICES

This S-food group may take more parental patience and perseverance than the other three. As a general guide, the stronger the flavor of the spice, the greater are its healing powers.

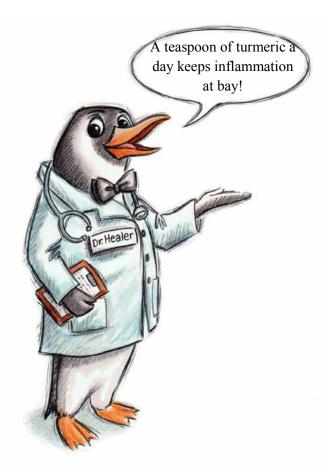
Turmeric. Besides being one of the most scientifically researched spices, turmeric is also a top healer:

- Enhances immune system to search out and destroy cancer cells
- Helps balance inflammation to facilitate healing, especially for "itis" illnesses
- Enhances digestion



Turmeric tips:

- Start low, go slow. To shape your child's tastes toward accepting and eventually craving spiced up cuisine, start low (a few sprinkles) and go slow (every other day).
 Gradually increase the daily dose.
- 2. Mix turmeric with black pepper. Another healing example of food synergy, black pepper enhances the intestinal absorption and potency of turmeric. Sprinkle ½ teaspoon of turmeric and ¼ teaspoon of black pepper on salads, into stews and stir-fries, and into any other of your child's favorite foods. Gradually increase to one teaspoon of turmeric.



Cinnamon. While the research on cinnamon is not as convincing as that for turmeric, cinnamon is a spice most kids know and like. Cinnamon can help healing by:

- Stabilizing blood sugar
- Increasing insulin sensitivity so the cells need less insulin to do their work. Remember, stable blood sugar and insulin levels enhance healing.
- Promoting a balanced inflammatory response, i.e., helping the immune system work better.

Sprinkle cinnamon into homemade cookies, into smoothies, on oatmeal, and into warm tea. Gradually, as you increase added cinnamon you can decrease added sugar, thus converting "bakery bads" into bakery goods. (See related section, Healing Treats, page 38.)

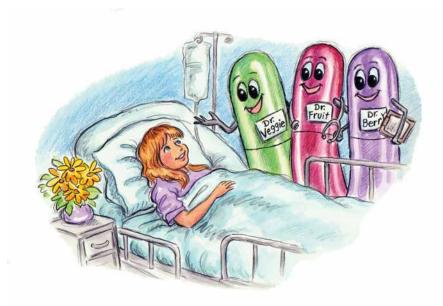
HEALING "SPRINKLES"

Kids love sprinkles, especially the "do it myself" kind. Sprinkles are a sneaky way to add a flavorful and healing touch to otherwise bland or unflavored foods. Try:

- Ground almond "crunchies"
- Ground flaxseeds
- Sunflower or sesame seeds
- Grated ginger root
- Grated lemon peel
- Cinnamon
- Turmeric
- Dark chocolate sprinkles or cacao nibs
- Nutraceutical supplement fruits and vegetables sprinkled from the capsules (see suggested supplements, page 37), call them "sprinkles".

SUPPLEMENTS

Ideally, try to get optimal nutrition into your child by serving real foods. But with your doctor's advice, you may need to supplement your child's daily diet during times of extra nutrient needs or during a stage of healing when he is not able to eat enough. Healing food supplements are appropriately called *nutraceuticals*. Supplements fill in the



gaps in the other S-foods when your child isn't eating sufficient seafood, fruits, and vegetables.

Parent tips: In the desire to help, well-meaning friends may offer "take this..." advice. Before giving your child any nutritional supplement consider:

- Taken in the recommended dosage, could the nutraceutical interfere with the prescription pharmaceuticals your child is already taking? (None of those listed below do.)
- Is there science proving the supplement is absorbed into the bloodstream?
- Is there science proving it helps the body heal once it gets in?

Safe and proven healing supplements we most frequently advise:

- Omega 3 fish oils: (See Dr. O. Mega III's advice, page 29.) For most ages, "A gram a
 day, healing doctors say." (See *The Omega-3 Effect* by Dr. William Sears for
 recommended doses for various ages.)
- Vitamin D: 500-1000 IU per day
- Probiotics (See AskDrSears.com for recommended probiotics.)
- Concentrated fruit and vegetable extracts, e.g., Juice Plus+® (1-2 capsules of each fruit, vegetable, and berry blend each day.)
- Natural Hawaiian Astaxanthin (The pink nutraceutical that helps wild salmon heal during their marathon swim upstream.)

- Zinc (5 mg–15 mg)
- Hawaiian Spirulina (1 teaspoon), added to smoothie

See AskDrSears.com/supplements for an updated list and appropriate dosages.

ENJOY HAPPY MEALS

No, not fast-foods, which slow healing. "Happy foods" contain calming nutrients, such as the amino acid tryptophan, that encourage the release of relaxing hormones that stimulate the body and brain to produce "happy hormones" such as dopamine and serotonin. (See Snooze Foods, page 74.) They also contain high levels of "phytos" (phyto is Greek for "plant"), nutrients that feed the immune system (see Healing Superfoods, page 31). Experiment with what foods most calm your child. Foods that make your child happy are most likely to help your child heal.

Enjoy dark chocolate, not milk chocolate. Cocoa beans are loaded with natural healing nutrients called *flavenoids*, similar to the antioxidants found in fruits and vegetables. (No, your child shouldn't substitute a dark chocolate bar for a salad ©.)

Choco tip: Usually, the higher the cocoa content (listed on the package), the higher the nutrient value and the lower the junky fillers. Begin with 50 to 60 percent cocoa and gradually increase up to 80 percent as your child reshapes her tastes. In choco healing talk, "bitter is better". Best choco healers are "raw cacao" powder or "cacao nibs", which are usually less processed, but more bitter, than "cocoa".

DR. HAPPY HEALER'S HEALING TREATS

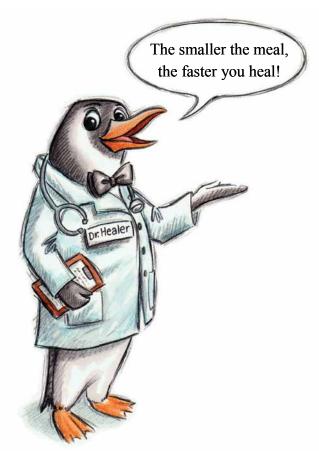
A happy child heals more quickly. Help your child heal by getting her mind off her pain. Children are likely to have more of a sweet tooth while healing. Sweet foods satisfy cravings and comfort foods relax and, if used wisely, can actually enhance healing. Hospitalized kids love

favorite treats they get from Dr. Mom's (and Grandmom's) kitchen: dark chocolate bars, homemade cookies, yogurt gelato, and Mom's healing apple pie.

(See healing recipes: AskDrSears.com/HealingRecipes)

SNACK ON HEALING FOODS: GRAZE

Not only does *what* you eat affect how you heal, but also *how* you eat. You may have heard the gut-friendly truism: "the smaller the meal, the better you feel." We add:



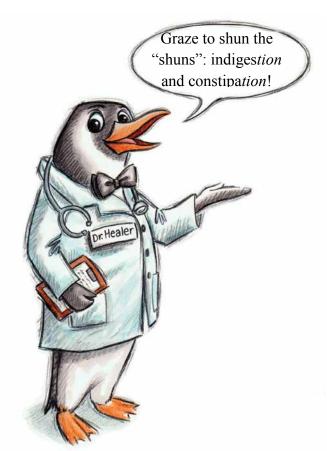
Teach your child the healing tool we call *the rule of twos*:

- 1. Eat half as much.
- 2. Eat *twice* as often.
- 3. Chew *twice* as long.
- 4. Take *twice* the time to dine.

Grazing helps your child feel good. Ever notice those half-empty hospital trays just sitting there? Healing kids need to sip, dip, and nibble their way through the hospital day. A child whose gut enjoys good feelings is generally a happier, more comfortable child. Grazing is especially healing for children who suffer from intestinal

disorders, cardiovascular problems, neurological disorders, or who are healing from cancer. Anesthesia medicines often slow down the functioning of the gut, causing indigestion and constipation. Taking smaller bites and chewing the food well enables more digestion to take place at the upper end of the gut, saving work and wear and tear on the lower end. This is especially important following surgery. In contrast, an unhappy, moody and painful gut can delay healing. Remember, the gut is called "the second brain." When the gut brain is comfortable, the head brain is happy.

Grazing is good for healing. Three important healing words are *stable insulin levels*. Because it's important for healers to understand how insulin can heal – and harm – here's a quick course on how to keep blood insulin levels stable – not too high, not too low – just right.



How insulin behaves. Like a building under repair, healing tissues need energy to grow and heal. Carbs are the fuel for growing and healing tissues. In order for the carbs in that apple that your child eats to get into the injured bone and muscle, these carbs need a biochemical escort – insulin. Insulin attaches to the carb like a buddy and escorts the carbs into the cells to fuel their work. If insulin is too low, which rarely happens, not enough carbs get into the cells, so they are starved of energy and can't heal or grow.

Eating too many carbs too fast causes insulin to go too high for too long, which, if it becomes a long-term eating habit, can lead to type II diabetes, also known as insulin insensitivity. Here's what happens in your

child's body when the cells are exposed to too-high levels of carbs for too long. The "doors" on the cells shout "Enough already! Don't overload us with more sugar than we need. We won't let in the excess sugar." The cells also send a message: "Take that excess sugar and store it somewhere else – belly fat." Excess belly fat spews out unhealthful biochemicals or anti-healers. We all know that one of the major medical problems that diabetics suffer is *poor wound healing* from sugar in the tissues that is too high for too long. Grazers are more likely to have stable insulin levels and a healthy amount of body fat.

Consider all the harmful things that happen to a healing child's body when the insulin is too high:

- 1. Poor wound healing
- 2. Weakened immune system
- 3. Increased inflammation

- 4. Cancer cell fertilization: excess insulin and excess sugar act like "grow foods" for cancer cells
- 5. Excess belly fat, which increases inflammation and decreases healing (more about this on page 68)
- 6. Decreased blood supply to healing tissues that need more blood supply

Graze on good foods. Here's how we pediatricians explain a good carb (healing carb) and a bad carb (hurting carb) to kids:

"A healing carb has two friends, Dr. Protein and Dr. Fiber. A healing carb always plays with these two friends; it never plays alone. These two good friends, Dr. Protein and Dr. Fiber, are like buddies that hold hands with the carb when you eat it. They release just the right amount of the carbs into the bloodstream when you need them – not too fast, not too slow. A hurting carb, on the other hand, has no friends. It plays alone. So when you eat one of these, it rushes into your bloodstream too fast and can harm your healing." Teach your child to look for the "two good friends" on the nutrition label when choosing to eat healing carbs: fiber and protein, such as a cereal that enjoys at least 5 grams of protein and 3 grams of fiber per serving.

HEALING CARBS	HURTING CARBS
Contain two friends:	Play alone.
Dr. Protein and Dr. Fiber	No healing friends.
Smoothies with fruits and greens	All-carb candy
Legumes: beans, peas, lentils	Cereals with fewer than 3 grams of
Veggies	protein and fiber per serving
Nut butters: peanut, almond	Desserts and pastries, store-bought
Whole grains: oatmeal, brown rice,	High-fructose corn syrup
cereals (at least 5 grams of protein and	Artificially sweetened beverages
3 grams of fiber per serving)	White bread and white pasta
Yogurt, organic	

A TALE OF TWO EATERS:

GRACIE THE GRAZER AND GEORGE THE GORGER

Gracie enjoys treats that have two friends, fiber and protein (and often a third friend, a healthy fat), because they give her good gut feelings after she eats. Because Gracie's blood sugar is stable, she does not have so much sticky stuff (see page 44) floating around her bloodstream to interfere with healing. Her blood vessels are not clogged with sticky stuff, so she gets more blood flow to her tissues, which also promotes healing.

Excess sugar in George's blood produces a lot of "sticky stuff," biochemicals that stick to the edges of his blood vessels and infiltrate the tissues to keep them from healing. High blood levels of insulin and blood sugar act like anti-healers, just what George does not need to help himself heal. Naturally, Gracie the Grazer heals better than George the Gorger.

DR. MOM'S MENU FOR HEALING

Here are the top nutrition tips to help your child heal:

- Just eat real foods.
- Graze! Follow the rule of twos: eat twice as often, eat half as much, chew twice as long, take twice the time to dine.
- Enjoy eating the six S's of healing foods: smoothies, seafood, salads, spices, supplements, and snack on healing foods.
- Eat more plant-based foods and less animal-based foods.
- Eat more seafood and less meat.

TOOL #3: KEEP "STICKY STUFF" (ANTI-MEDICINES, ANTI-HEALERS) OUT OF YOUR CHILD'S BODY

Now that you've learned what to put into your child's body to help it heal, we want you to know what to keep out. These chemicals and other toxins are known as "anti-medicines." You are



about to learn one of the most important tools for helping your child heal, presented in fun-to-read, kid-like language: *Keep "sticky stuff" out of your child's healing body*. What's sticky stuff? Read on!

Sticky stuff harms healing. "Sticky stuff" is my science-made-simple term for biochemical debris that collects in tissues and keeps them from healing. For you healers who like real names, this sticky stuff brings on the three "shuns" that delay healing:

- Inflamma*tion*: the immune system goes quirky.
- Oxidation: rust, wear and tear on healing tissues.
- Glyca*tion:* sticky sugars that accumulate in the tissues and interfere with healing.

Avoid chemical foods. What healing diet should my child

be on? Answer: *The Real Food Diet*. Real food heals; fake food hurts. Remember, healing foods help by:

- Providing nutrients to repair and grow tissues.
- Strengthening the immune system to prevent infection and hasten healing.
- Creating physical and emotional comfort and calmness, allowing the body and brain to waste less energy hurting and divert that energy into healing.

Fake foods do none of the above. Some contribute no healing help; some actually hinder healing; and the neutral ones harm just by taking up time and energy that the child would otherwise use

on eating healing foods. Here's how a mother got her healing (and constipated) child to remember the real food diet:

"Eat real food,

Poop real often,

Feel real good."

Thanks, L.E.A.N. Coach Kathy Bee!

To convince you why your child must eat mostly real food and little fake food while healing, let's take a look at your child's immune army. Your child has three "armies" commissioned to heal and protect. One army is equipped and programmed to detect terrorists such as germs, cancer cells, and any substance that is foreign to the body that threatens its welfare and prevents healing. Say a cancer cell starts multiplying out of control or a germ gets near the wound site and terrorizes the tissue. Specialized forces, called natural killer (NK) cells are quickly deployed to the terrorist site to search out and destroy these foreign cells. After they defeat the enemy cells another army, a sort of clean-up crew, called macrophages ("big eaters") are mobilized to the battle site to clean up the mess, like millions of miniature Pac Men gobbling up the debris. A third army, like a core of engineers, are then sent to the battleground to repair damage and reconstruct the tissue.

How fake food harms healing. Your child's immune army identifies fake food as foreign to the body and goes into attack mode. The result is excess inflammation, or poor wound healing. Instead of helping tissue heal it causes more tissue damage, or at least delays healing. Junk food causes the army to harm rather than heal. It is loaded with chemicals to make it last longer, taste more craveable, and lower the cost – but at the expense of the body's health.

Dr. Bill's healing tip: Remember my promise to you: *simple and scientific*. Here is the simplest yet most scientific explanation of healing you've ever heard: *Keep sticky stuff out of your child's body*.

Let's follow an artificially-sweetened, empty-calorie product (empty of healing properties) such as a "bakery bad" – a Twinkie – into your child's body. When your child downs the Twinkie, excess sugar molecules float around the bloodstream looking for other nutrients on which to hitch a free ride. By a chemical bonding process called *glycation*, they attach themselves to proteins, those building blocks en route to the tissue repair site. These new sugar-protein molecules even have a name: *A*dvanced *G*lycation *E*nd products, or AGEs. These AGEs attach to tissues, preventing growth and repair. Think "frosted" tissues. AGEs also stick to blood cells and to the lining of blood vessels slowing blood flow to nutrient-needy healing tissues.

The Twinkie story gets worse. The body's immune system, in its wisdom, recognizes this sticky stuff in the blood and tissues as "foreign" (it doesn't belong there) and deploys an army to get rid of this garbage. As the army tries to get rid of this sticky stuff, the soldiers cause a mess in the battleground, leaving the healing tissues in a mess. These tissues then often hurt rather than heal; the body is in a state of inflammation imbalance, and "itis" illnesses develop.

Not yet fully convinced that you should purge your pantry of fake foods in favor of a pure kitchen? When the body wastes energy fighting sticky stuff, it has less energy reserve for healing. And when healing kids eat junk food, this food fills them up and takes the place of the healing foods.

Sweet stuff can be sticky stuff. While your child's body is healing, be careful with junk carbs. Remember: sweet stuff into the mouth can become sticky stuff in the healing tissues. A top tip in helping your child heal is to keep the body in *inflammatory balance*, meaning to protect and repair, but not to overreact and damage.

Teach your child to avoid the "bad words" on food labels such as: high fructose corn syrup, colors with numbers such as red #40, hydrogenated, and chemical flavor enhancers such as MSG (monosodium glutamate) and preservatives like nitrates and nitrites.

Some food ingredients that are lousy for healing. As you become Dr. Mom and Dr. Dad, and your child's nutrition nurse, you will need a crash-course in label reading. (See AskDrSears.com/foodlabels.)

HEALIES VS HURTIES

Young children can understand the difference between "healies," real food, and "hurties," junk foods that delay healing.

GO ORGANIC!

Should I go to the extra expense of buying organic food for my child? Answer: what's your child's healing worth? Consider:

- Children fed primarily an organic food diet have much lower levels of pesticides in their urine¹ compared to children eating a primarily non-organic diet. When these non-organic kids were then changed to an organic diet, these pesticides disappeared from their urine. When the "pure kids" resumed the "less pure" diet, the pesticides returned.²
- Children's bodies contain a higher percentage of body fat. Pesticides like to be stored in body fat.

Conclusion: Go organic! (See AskDrSears.com for a list of the "clean fifteen" and the "dirty dozen," and tips for buying organic foods on a budget.)

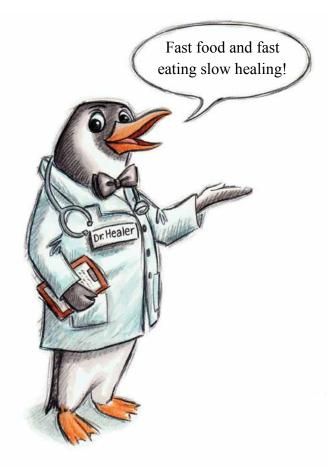
NO SMOKING, PLEASE!

Cigarette smoke harms your child's healing. Imagine you are leaving the hospital after your child has been treated for a major illness and just outside the hospital there is a room on which

¹ Environmental Health Perspectives 111, No. 3, 377-82, 2003.

² Environmental Health Perspectives 114. No. 2, 260-63, 2006.

is displayed the warning: "The air inside this room contains nearly 4,000 toxic chemicals, which are hazardous to healing." Certainly, you wouldn't take your child in there. Yet, that's exactly what happens when your child is in an environment polluted with cigarette smoke. And, don't be unrealistically swayed by a "non-smoking" section in a restaurant, which is like trying to chlorinate half of a swimming pool. As much as possible, if the establishment is not a smoke-free facility, do not take your child in there. If you cannot avoid going into a place that is not smoke-free and you see a person smoking nearby where your child needs to be, please approach that person and nicely, but firmly, say, "My child is healing from...would you please go somewhere else if you wish to smoke. Our doctor says smoke is bad for my child's healing body. My child thanks you for caring."



I was so hungry after I got out of the hospital. I wolfed down the food too fast when I got home and got a tummy ache. To slow me down, Dr. Bill showed me how to eat with **chopsticks** instead of a fork.

Cool!

Shane Dhillon, age 13

TOOL #4: HUMOR HEALS: "LAUGHTER IS THE BEST MEDICINE" – AND OTHER STRESS-BUSTERS

Humor perks up the patient, calms discomforts and alleviates anxiety. Naturally, when your child hurts you won't feel funny but, for your kid's sake, you sometimes have to act funny. A well-timed joke or hospital-room clowning around may be just what the pain doctor ordered. Stress and tension raise hormones that hinder healing, tighten already sore muscles, narrow blood vessels and depress the already overworked immune system – just the opposite physiologic effects you want to help your child heal. "Laugh it off" is good medicine!

Laughing helps your pain go away...unless you have pain in your abdomen.

HOW HUMOR HEALS

There's a scientific basis for the old doctor's tale: "Laughter is the best medicine." Here's a bit of jollyology:



- Laughter raises the blood level of circulating germ-fighting soldiers called T-cells.
- Humor boosts germ-fighting NK cells.
- Laughter lifts spirits and speeds healing, which lowers the blood level of circulating stress hormones, which are anti-healers.
- Laughter increases circulation and helps the heart. That's why it's called "inner jogging."
- While mood mellowers, such as laughter, touch, music and pleasant thoughts heal, unresolved stress does the opposite.

Humor heals the healers, too! Besides strengthening the immune system and balancing inflammation (two main healing tools), humor helps the whole team of healers be less anxious and more efficient. Kids bond better to funny doctors, nurses, and therapists. Humor settles everyone around the bedside.

HEALING TEARS

Not surprisingly, crying and laughing are therapeutic for similar reasons. Tears have been found to contain cortisol (chemical by-products of stress hormones), as if tears are the body's overflow for excess stress. And during laughter the blood level of stress hormones goes down. Perhaps those medical facts are the therapeutic basis for "a good cry."

Never feel embarrassed to cry, even if you're a guy.

Humor is contagious. Smiley, and sad, faces are contagious. If a child is severely ill, and everyone around the bedside is solemn, the child gets the unhealing message, "I must be seriously sick." If the child is surrounded by smiling but caring faces, the healers help the child believe, "I'm going to get better."

Smile! Like laughter, smiles are contagious and stimulate pleasure centers in the brain. A hospital room full of smiles is also just what the pain doctor ordered.

I loved when my friends visited and said: "Can I help you or send you something?" One friend emailed me some funny photos of me he had stored on his iPhone.

Humor is hope. Hope heals. Kids need hope they will heal. Remember that cowboy song, "Where never is heard a discouraging word..." Humor uplifts a child's spirits to feel "my healers are happy, I must be getting better."

My mom's face was my monitor. When she was sad, I would feel bad. When she was happy, I thought I must be getting better.

"I love you, now heal." There's a tongue-twisting term for a scientist who studies how the mind and immune system work together to heal – a *psychoneuroimmunologist*. Okay, you've been called worse! When you show and tell your child "I love you" and your child feels it, studies show these feelings steady the already upset immune system, enabling it to better heal.

Devan's story: I love my brother. He was so sick and there were so many people in his room. I didn't know how I would help him feel better. One day Dr. Bill gave me a job on the team, and a title: 'Dr. Devan – the clown.' Each day I would tell a joke or try to funny-up something that happened. My brother felt better, and so did I.

Play show and laugh. Play the family's funniest home videos on a tablet and encourage your child to share comments on these. Pick out videos that are healing and hopeful. Pack a box of old and new DVDs of your child's favorite funny movies. Call this humor library your child's "medicine cabinet."

My dad showed some funny videos of me playing soccer. Not only did I laugh, but this helped me believe I would play soccer again.

HAVE A HEALING WALL

On the wall or shelf in your child's hospital room, display memorable scenes that prompt your child to focus on good memories. These happy places divert wasted energy from how much he hurts into motivation to heal. Have a similar "wall of fame" in your child's bedroom during healing at home, displaying sports trophies, honors, team photos, etc.

Hospitals provide healing humor. While you may not think of a children's hospital as a place where funny things happen, they do. As hospitals are discovering the healing power of humor, many now provide: caring clowns, humor carts, and even funny items and funky props that cater to kids' potty humor, such as a bedpan with fake poop. Making a bedpan funny makes your child more likely to accept it.

Kids who help heal. Some hospitals have a list of kids who have healed from serious illnesses and volunteer to tell their stories to kids who are healing. This kid-to-kid ministry not only gives the healing child hope, but gives the helper a high.

Dr. Bill advises: Enjoy the healing helper's high. The greatest joy of being a doctor is what I call the *helper's high*, that priceless feeling you get when something you said or did helped another feel better. My wish for all you healers is to leave the patient a bit better off for you having been at their bedside.

THERAPEUTIC TOUCH

If laughter is the best medicine, touch runs a close second.

Hands heal. Especially hands that care. From infant massage to toddler and teen touches, a well-timed and perfectly-placed massage can be therapeutic. Oh, the healing power of parental touch! Remember those precious massage moments: "Mommy, rub it (or kiss it) and make it better." Touch is one of the most time-honored healing tools. You know where your child hurts and you have the experienced hands to heal. The medical team applies their special touches, and mom adds the finishing touch.

Hugs are great for healing. They make you feel safe and loved.

How touch heals. Science says touch heals by:

- Increasing NK cells, the body's most powerful weapon against foreign invaders, such as germs and cancer cells.
- Reducing excess stress hormones that delay healing and increase hurting.
- Conveying "you are loved, you will heal" feelings.

I loved when my mom rubbed my head. It helped me go to sleep and made me feel safe.

THE HEALING POWER OF MUSIC

Composers have long known that music mellows the mind, which helps the body heal. Music that your child finds healing, you may find annoying. As your child heals, you may need to widen your musical tastes to enjoy whatever your child wants to hear at the time.

iPod therapy. Try an iPod for the hurting "bod." Your kid's top tunes may not be so pleasant to your older ears, but let her choose her own mood medley. Put together your child's selected playlist. Music heals by:

- Releasing happy hormones that soothe and heal.
- Reducing inflammatory biochemicals that slow healing
- Retrieving pleasant memories that can overshadow recent ones that remind of the illness.

When my father played "Thank Heaven for Little Girls," it reminded me of our first dance together.

When my baby brother needed heart surgery to save his life, I composed a melody that I think helped him heal.

- Ethan Bortnick, child prodigy pianist, age 9

HEALING MUSIC

While musical tastes are individual to both your child's hearing and healing, in our experience these are some favorite calming pieces of music for the healers in the patient's bedroom:

- "The Prayer" by Andrea Bocelli
- "The Rainbow Connection" from *The Muppet Movie*
- "Theme from The Godfather"
- "It's a Wonderful World" by Louis Armstrong
- "Theme from Forrest Gump"
- Emile Pandolfi medley
- *Miracle* album by Celine Dion
- Heartstrings album by Jason and Nolan Livesay
- "Moonlight Sonata" by Beethoven



ENJOY HAPPY THOUGHTS

Thoughts can heal; thoughts can hurt. Imagine the mind of your previously well child who painlessly eased out of a familiar bed every day in a kid-designed room, ate kid-friendly food, played all day; no worries, all fun. Then by an unfair quirk of luck an accident happens, or devastating disease strikes. Your previously well child can't live like a child, at least for a while. While children are often more adaptable than adults, the world of a sick child is not very child-like: treatment schedules, all-day bedtime, untasty medicines and uncomfortable needle sticks. And the playground may be a month in a 10x10 hospital room. You have a recipe for unhappiness and unhealing. *Sick life sucks!*

Depending on the illness, the only thing that remains under control – for parents and child – are the thoughts that fill the mind. This realistic fact of healing life opens the door to teach your child a valuable lesson in life: *You can't control circumstances, but you can control your reaction to them.*

This top therapeutic fact of mental life marks the difference between a person who survives and thrives following a life-changing event and the one who succumbs to the downers of anger and pity parties. Here's how one child, and parents, turned a health problem into a life-enriching opportunity.

Dr. Bill notes: Ten-year-old Shane Dhillon suffered a boating accident and nearly lost his leg. After two years of multiple leg-saving surgeries Shane's leg healed, enabling him to return to the sports he loved. During those two years of painful healing, Shane used a powerful mind tool: he made a project out of his problem. He helped me write this book. He studied the principles of wound healing, began a ministry of helping kids heal by visiting them in hospitals and sharing his tips. His ambition: to be a surgeon.

Of course, there were situations that "sucked," such as having to hobble on crutches to classes. Shane confided to me that the mental turning point was when we had the talk about how "survivors" often turn a problem into an opportunity. By eating healing foods and having other

healing health habits Shane is likely to grow up enjoying a smarter brain, healthier heart, and overall better health because he took personal charge of his healing, and the rest of his body will be healthier from these life-long health habits.

ELEVEN THINGS WE LIKE ABOUT YOU

An encouragement Dr. Bill has advised for many years is for parents, loved ones, and friends to list all the things they like about the child and the child likes about herself/himself (e.g., "I love your laugh!"). Post this "You're Special" list on the hospital room wall, bathroom mirror (when home) or on his cell phone. This frequent visual reminder helps the child heal physically and mentally.

Get behind the eyes of your child. Caring for a sick child is a series of serious responses: My child does this, what do I do? My child acts this way, what does she need? How should I respond? Tip: As soon as your child gives you a needy clue, immediately think, "If I were my child, how would I want my caregiver to respond?" Then just do it! You'll nearly always get it right. *Parent empathy* is a powerful blueprint for emotional correctness. The neuroscience of empathy reveals that when you try to imagine what's going on in the brain of a hurting person your brain develops similar nerve pathways called *mirror neurons* as a prompt to help you to know or feel what's going on in the brain of another person. You have perfected it since the birth of your child. Trust it!

SELFIE-HELPIE

Here's another healie. Ask your child's friends to send funny selfies showing the friends acting goofy and giving an encouraging healing message to your cell phone. Your child will look forward to this daily dose of funny video medicine.

STRESS-BUSTING MIND GAMES TO HELP YOUR CHILD HEAL

Play "instant replay." Research reveals that "happy thoughts" build nerve pathways in the brain that grow into a "happy center," which secretes healing neurochemicals. On the contrary, negative thoughts or negative self-talk builds nerve pathways that can delay healing. So, teach your healing child to dwell on positive self-talk, happy thoughts, and happy memories — either real or imaginary ones. Teach your child this mood-switching trick: As soon as a hurting thought tries to come into your mind, *instantly replay* "healing thoughts," happy scenes from your

childhood, or even imaginary scenes, such as kicking a winning goal or dancing on stage. Take your mind into a happier place quickly before sad thoughts take over.

Trash the "trash talk." Remember the trash bin on your computer into which you quickly send junk email that would take up your valuable time to read? Do the same with negative thoughts – and teach your child to do the same. We parents are a



set-up for guilt trips that distract us from using our positive energy to help our child heal. As soon as a disturbing thought begins, such as "If only I had..." click into a "don't go there" mindset as you quickly click into a happier thought. (See Tool #8 for more healing mind games.)

I encouraged my hurting child to color and draw out her feelings.

TOOL #5: HELP YOUR CHILD SELF-RELIEVE PAIN

Depending on the operation, illness, or tissue damage from an accident, your child will need lots of pain relief, *both* prescription and parental, and there is a difference between the two:

PARENTAL PAIN RELIEF	PRESCRIPTION PAIN RELIEF
Free	Costly
Pleasant side effects	Unpleasant side effects
Positive addiction	Negative addiction
Tools for life	Temporary tool
Can't overdo it	Overuse can delay healing
Custom-made for child	Standard dose

Unrelieved pain, much like unresolved stress, slows healing. When a child hurts, blood levels of anti-healing hormones skyrocket and your child diverts precious energy from healing into crying or tensing against the pain. Unresolved stress can *increase sensitivity to pain*, causing the child to hurt more. And when your child hurts, you also hurt, and the whole team of healers hurts.

How healing hurts. Tissue that is healing hurts. When the body naturally mobilizes its immune army to heal, the "fight" that goes on during infection fighting, inflammation fighting, and general repair stirs up biochemical mischief in the tissues that causes pain. All tissue is naturally equipped with pain sensors as a signal for where the body needs attention, sort of like a "check engine" light in the dashboard of your car. Nerve fibers (pain pathways) go from the target tissue to the brain and register, "hurts!"

How hurting heals. The gate theory of pain relief goes something like this: Pain signals have to go through a gate in the spinal cord before they enter the brain and you begin to feel your cut finger. This gate can allow only so much nerve traffic through it at any one time. So the key to pain relief is to jam the gate with so many feel-good messages (e.g., touch, thoughts, visual distractions) that this increased pleasant nerve traffic through the gate competes with and slows the pain signal traffic.

Try to close your eyes and relax when you have pain rather than tensing your body. It's a hard concept to master, but it makes everything easier.

While parental pain relief is mind over medicine, realistically in the early stages of healing your child will probably need both what the doctor orders and what parents provide. The key to medical pain relief is to adjust the dose to help the child not hurt, but not so high that the side effects hinder healing. So, the higher the dose of parental medicine, the lower the dose of prescription medicine. And as your parent-provided "dose" goes up, the doctor's prescribed dose can eventually go down, thus preventing the common "shuns" of prolonged prescription pain medicines: constipation, hallucination, and addiction.

We taught our son how to communicate how much pain he was in. We did do the distractions to keep his mind off it, but we also told him the truth if a procedure was going to hurt. We told him that he would need to be a big, brave boy, but that it wouldn't hurt for very long.

Keep your child's mind focused on happy thoughts. The key to postoperative and post-trauma pain relief is *mind over medicine*. Pain from the hurt tissue travels to specific pain centers in the brain. When other centers of the brain are preoccupied with competing "happy thoughts," those pain impulses from, say, the broken leg, get partially overlooked because your child's brain is busy focusing on better thoughts.

Dr. Bill notes: While attending my 10-year-old patient, Shane, in ICU after major surgery to repair a crushed leg, I asked him what his happiest family memory was. He said "Our family trip to Africa." So I asked Shane to click into "instant replay" as soon as a pain or worry started. By immediately "thinking Africa" his brain then retrieved the African trip and he focused so much on the pleasant scene that he partially forgot the pain.

Take a deep breath. Deep breathing is good medicine:

- It increases oxygen getting into the blood, which helps wound healing.
- It distracts the child from pain by turning up the relaxation nerve centers (called the
 parasympathetic nervous system), turning down the stress and pain-sensing nervous
 system (sympathetic nervous system), and releasing the feel-good neurochemical
 dopamine.
- Deep breathing through the nose stimulates receptors in the nasal lining and sinus cavities to release a natural healing substance called nitric oxide. Known as NO, this natural

healing biochemical is one of the most important medicines your body makes. Besides acting as an anti-bacterial, antibiotic, and anti-inflammatory, it widens the blood vessels in the lungs, which delivers more healing oxygen to hurting tissues. (See page 65 for more about the natural healing effect of nitric oxide). Help your child choose a phrase to focus on like:

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"Good" (inhale to a count of 5)... "Day" (exhale to a count of 5)

"Love" (inhale)... "Mom" (exhale)
```

Help your child practice deep breathing during potentially painful procedures, such as blood drawing or injections.

Partner deep breathing with *deep yawning*, which also triggers relaxation centers in the brain to promote calmness.

Humming heals. Humming oscillates the air in the nasal and sinus cavities which triggers even more healing NO.

Play music. Music calms the mind, which heals the body. Play favorites. Try continuous background music and make sure the child can control the volume and selections with his own remote. As the pain begins, turn on the iPod. (See The Healing Power of Music, page 54.)

Distract and substitute. If some medical equipment such as a cast, bandage, or I.V. irritate the child, try distracting her attention from the annoyance to something appealing, such as a video game or a story.

Dr. Bill notes: "I gave Shane two squeeze balls for two reasons: As a distraction during pain and to keep his tennis muscles strong. By giving him something to do with the upper part of his body, it took the focus off his hurting legs."

Turn on funny toys. If your child has a favorite toy, such as a remote-controlled dancing monkey, put it in her room so she can turn it on at will. Eventually, your child will self-program: "When I begin to hurt, I turn on my toy..."

PARENTS AS PAIN RELIEVERS

One of the oldest pain relievers comes from the *placebo effect*, a mind-over-body phenomenon of "if you think you are going to feel better, you will." This actually is part of the healing effect of many prescription drugs. For a drug to gain FDA approval, it must be shown to have greater medicinal effect than a look-alike sugar pill. Because the desire to feel better and the hope the pill will work is so strong, in some studies around 30 percent of people taking a placebo pill felt better because they assumed the pill would work. Ideally, this placebo effect combines with the actual effect of a proven medication to make it even more effective.

Here's where parents and friends shine. By showering the patient with encouragement, such as "This (treatment, new medicine, healthy food, etc...) will help you feel better," you fill the happy centers of the child's struggling mind with positive thoughts that eventually crowd out unhappy thoughts. In fact, stress studies have shown that patients who focus on the positive, "I will get better," or "I will heal," had lower stress hormone levels, which means lower sensitivity to pain. Double this effect at night when high stress hormones keep your child from sleeping – and healing.

TOOL #6: MOVEMENT IS GOOD MEDICINE

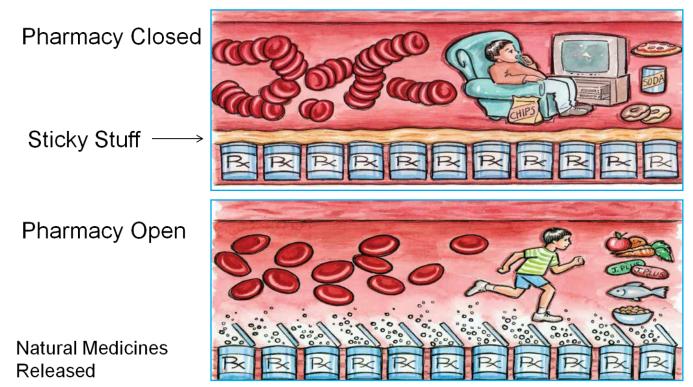
The body is made to move, especially young, healing bodies. Yet this often seems impossible, especially if bedridden after major surgery or during accident recovery.

How movement heals. Here's what science says. Exercise:

- Balances the immune system by lowering excess inflammatory chemicals (those often responsible for *pain*).
- Increases NK (anti-cancer, anti-infection) cells.
- Reduces excess hormonal chemicals, such as insulin growth factor, that delay healing and act like fertilizer for cancer cell growth.
- Mellows moods and lifts depression.
- Improves blood flow to deliver nutrients to healing tissues.

The healer within your child's body. One of the most healing discoveries in the past decade is that the body is a giant pharmacy. Inside that "pharmacy" are natural medicines that not only prevent illnesses, they are custom-made just for your child, dispensed just at the right time, at the right dose, free of harmful side effects, and they're free!

Make Your Own Medicines



"Where in the world of the body are these medicines and how can I help my child open this personal pharmacy?" you may ask. The answer to this novel discovery won the Nobel Prize.³

Most of this pharmacy resides within the lining of your child's blood vessels, the endothelium. Perhaps you've never heard of this magical tissue, which is actually the largest endocrine organ in the body. This one-cell-thick layer of tissue is like pavement surfacing the vascular highways. The endothelium is so extensive that if you were to imagine it to be like a carpet lining all the blood vessels and you were to stretch it out flat, it would cover the surface area of a tennis court. Here's a science-made-simple explanation of how movement makes medicines.

³ Dr. Bill's friend, Dr. Lou Ignarro, Professor of Pharmacology at UCLA School of Medicine, shared the Nobel Prize in 1998.

Inside the endothelium reside millions of glands, like microscopic *medicine bottles*, that make medicines to help your child heal. These medicines include:

- Anti-inflammatories, or anti-sticky stuff medicines.
- *Anti-coagulants*, more anti-sticky stuff medicines that enable the red blood cells to flow faster and deliver much needed oxygen to the healing tissues.
- *Vasodilators*, medicines to widen the blood vessels. This increases blood flow to deliver more healing nutrients to tissues in need.

Movement opens the pharmacy. Like bottles of medicine that sit in your neighborhood pharmacy awaiting a doctor's prescription to dispense them, these endothelial glands need a biochemical "bottle opener" (nitric oxide) to open them and release these healing medicines into your child's bloodstream at the right time and in the right dose. Movement is that medicine-bottle opener. When blood flows faster over the surface of these microscopic glands, say when your child pumps his muscles, walks fast, or swims, the increased blood flow creates a force field that opens these "medicine bottles" and releases healing biochemicals into your child's bloodstream.

Move what needs to heal. While the prescription "rest what hurts" still applies in many cases, in cooperation with your child's medical team you will often be advised to "move what needs to heal." Physical therapists will show you how to pump healing legs, arms, and hands to increase circulation to the healing tissue.

Depending on your child's illness, your doctor and therapists will instruct you when and how to safely help your child move more to heal faster. You'll be pleasantly surprised how many movements you can sneak into your child's healing body parts throughout the day. For example:

- One leg is in a cast, pump the other
- Can't move legs, exercise the arms
- Can't move upper arms, flex fingers using a squeeze ball

As I lay there in bed after my accident, I wanted to move my leg, but I couldn't. Dr. Bill gave me a squeeze ball for both hands. When I played squeeze ball I exercised my hands and arms, and it got my mind off my hurting leg.

Movement calms. Not only does movement heal, it calms. Movement releases mood mellowers from the internal pharmacy to perk up the spirits and relax tension. Perhaps that's where the saying "walk it off" came from. Oftentimes spirits are raised better by "cycle therapy" than psychotherapy, yet sometimes both are needed. Once skin wounds or incisions are healed, *swimming* can be the best exercise the healing doctor ordered.



Dr. Bill notes: Over my forty years as a medical healer I studied the secrets of survivors, people of all ages who not only *survived* a potentially fatal illness, but whose lives also *thrived* because of it. They had four things in common, and I combined them in the acronym L.E.A.N.:

Lifestyle: How you live. They made health their hobby.

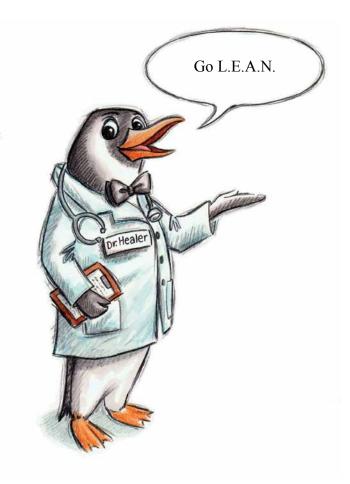
Exercise: They strengthened their immune system and lifted their spirits by exercise.

Attitude: They practiced hope instead of helplessness. They believed, "I can conquer

this illness."

Nutrition: They ate a "real food" diet, mostly seafood and plant-based.

(For more about these four pillars of health see Dr. Sears' L.E.A.N. Program at DrSearsWellnessInstitute.org)



TOOL #7: HELP YOUR CHILD STAY L.E.A.N.

Your previously active, athletic child, now perhaps bedridden or sedentary by the illness, begins getting a "little gut" or pooch around the middle. "That's okay, I'm just happy he's able to eat, and he'll eventually lose that childhood belly fat," you rationalize. Yes, you're partially right. Growing children usually "lean out," losing that excess fat around the middle as they grow through middle childhood. As you help your child learn all the other tools, chances are great that your child will get and stay lean without a "weight-control program." Yet, excess belly fat can delay healing. Remember the "sticky stuff" principle of delayed healing you learned about on page 44? New insight reveals that excess abdominal fat doesn't just sit there, it does something – and that "something" is it spews out "sticky stuff" biochemicals that delay healing. Being overweight can lead to under-healing.

THE BIG-BELLY ANTI-HEALING CYCLE

Hurts to move Eat fattening foods



Put on excess belly fat



Accumulate obesity-related anti-healers



Get obesity-related illnesses: Type II diabetes, sleep apnea, depressed immunity



Delay healing

Those extra belly-fat cells misbehave like millions of miniature factories spewing out chemicals called "anti-medicines" that pollute tissues and prevent them from healing. Specifically, these excess fat cells produce toxic chemicals that:

- Depress the immune system
- Clot blood vessels
- Infiltrate tissues with sticky stuff called "pro-inflammatories"
- Produce chemicals that fertilize the growth of cancer cells
- Inhibit release of natural healing neurochemicals

Specific illnesses that are aggravated by excess abdominal fat are:

- Diabetes
- Mood disorders: depression, anxiety, bipolar
- Poor vision
- Inflammation ABCDs: arthritis, bronchitis, colitis, dermatitis
- Cancer
- Neurologic disorders
- Kidney diseases
- Fractures
- Joint injuries: especially hip and knee
- Congenital heart abnormalities
- Serious infections: meningitis, sepsis
- Delayed healing from major surgery

In a nutshell, any ailment that warrants hospitalization or long-term healing is aggravated by obesity.

As you can see, excess belly fat sabotages the effects of many of your healing tools. The correlation between the size of the waist and how well you heal is news to most parents, but you can see why we say that *lean* is a very important healing term for your family to learn.

SLEEP IS HEALING

Obesity interferes with quality sleep. Excess fat that accumulates around the child's airway reduces air flow and awakens the child during sleep, lessening deep sleep, the stage of sleep in which most healing occurs.

Does your healing child need to be on a diet? Yes and no! No, in the usual sense of "diet," meaning some fad, restrictive, and often drastic changes. Yes, because the word "diet" simply means a way of eating. So what is the "healing diet"? Simply put, it's the way every child – and family – should eat anyway, which you have already learned to do in tools two and three:

- 1. Just eat *real* food, not chemical foods.
- 2. Graze, using the rule of twos: eat *twice* as often, *half* as much, chew *twice* as long, and take *twice* the time to dine.
- 3. Eat mainly the six S's of healing foods: smoothies, salads, seafood, spices, supplements and healthy snacks.

By following these three dietary habits, and *moving* the body as much as possible, your child is likely to stay lean while healing.

Suppose your child has already put on a pudge or already had one before you knew the relationship between leanness and wellness. While your child doesn't have to give up the healing of mom's apple pie, here are some healthy changes to help your child get lean and heal:

- **1. Serve lean carbs.** Junk carbs are usually the culprit in excess abdominal fat. (See page 42 for difference between healing carbs and hurting carbs.)
 - Always partner carbs with two friends: protein, fat, or fiber
 - Limit sweetened beverages. Sodas are sad for healing.

- **2. Begin meals with the "S" foods, seafood and salads.** "Well foods before fun foods," Dr. Mom advises. By a fortunate nutritional quirk of nature, healing foods are more filling (child becomes satisfied sooner) than fake foods, many of which are intentionally chemicalized to tempt the child to overeat.
- **3.** Use a smaller plate and place serving bowls of food on your kitchen counter instead of in front of your child on the dining table. Out of sight is out of tummy.
- **4.** Let children serve themselves. They are more likely to take smaller servings than when adults serve them.
- **5. Avoid mindless munching** in front of the TV.
- **6. Encourage "free foods."** "Eat all you want, anytime": Generally, the green-light healing super-foods listed on page 32 fill your child up more comfortably, and with smaller servings.
- **7.** Choose chopsticks. For the incorrigible gorger and fast eater, replace forks with chopsticks.

(For more information on helping your child stay lean while healing, see AskDrSears.com/LEANProgram).

TOOL #8: HELP YOUR CHILD SLEEP AND HEAL

Most healing occurs during sleep, so the better children sleep the better they heal. During sleep two helpful healers happen in your child's bloodstream: growth hormones (natural growth and repair biochemicals) increase and stress hormones (anti-healers) decrease. Sleep also allows the healing body to enjoy *inflammation balance*, when natural healing biochemicals suppress infection and repair tissues. In the deep stage of sleep is when your child's immune system is the most therapeutic. During sleep the immune system calls on the body's maintenance crew to get to work, sort of like a night shift reporting for duty while there is less traffic on the road. Melatonin, which is secreted during sleep, also helps balance the child's immune system. While you and your child sleep, the brain repairs and reorganizes, just as your computer does when the defragmentation and antivirus software clicks on at night. Here are ways to help your child sleep and heal:

Sleep well yourself. New children's hospitals are recognizing that children who sleep better heal better and are outfitting hospital rooms to more comfortably accommodate a sleep-over parent. The better Dr. Mom and Dr. Dad sleep, the better they can help their child heal the next day. Ask for a comfortable cot or rollaway bed, or bring in one yourself. If your child is in the hospital for more than several days, many parents find it's better for their child if they enjoy an occasional night's sleep at home in their own bed. Oftentimes taking the night off helps you be a better day healer. (Remember the advice your wise mother gave you soon after you brought your new baby home: "Remember, your baby needs a happy, rested mother.") If your hospital is far from your home and there is a nearby hotel/motel enjoy an occasional catch-up night's sleep.

Don't worry, be sleepy! Stress releases "keep awake" hormones and lowers sleep-inducing neurochemicals.

Be your child's sleep advocate. Because deep sleep is the most therapeutic, being awakened by a middle-of-the-night blood test, blood pressure measurement, or medicine injection can keep your child from enjoying the healing effects of a good night's sleep. Before bedtime, go over what tests and medicines could be *delayed until morning* or given without disturbing the child. Oftentimes bedside monitors that can be electronically viewed from the nurses' station can minimize a disturbance from the nurse entering the room and taking vital signs. Nighttime procedures are often necessary, but it's worthwhile being selective.



Enjoy a sleep-friendly environment. Mothers are natural nest builders. Minimize unnecessary noises, bright lights, and other mechanical disturbances so common in hospital intensive care units. Hang a "quiet, please" sign on your child's door so that passersby, such as a night cleaning crew, can respect your child's need to sleep.

Rehearse sleep-wake signals with your child. Before going to bed make it possible for your child to communicate his nighttime needs in a way that is least disruptive to sleep. For example, help your child use a "pee pot" or bedpan to save getting out of bed and taking a risky and awakening trip to the bathroom. If your child

does awaken you with a nighttime need try to comfort as quickly and simply as you can, like you used to do with your middle-of-the-night waking baby. Being awakened from a deep sleep followed by the inability to return to sleep can trigger a surge of stress hormones that delay healing. A nighttime social network is doubly important. When your child awakens in distress, knowing that she has a nearby shoulder to cry on, a hand to hold, an ear to listen to her needs, and someone nearby to continue reassuring her that she will be okay is just what the sleep-doctor ordered.

Turn down nighttime stress. Unpredictability about what's going to happen is a very stressful night-waker. For example, if your child needs a shot, ease the worry by a reassuring, "Just one shot and we're finished..." If she needs a procedure, give a reassuring "almost done..." If your child wakes up and says, "Mommy, how long am I going to be here?" give her a game plan: "After surgery your leg may hurt for a day and your stomach will feel queasy so you won't be able to eat much. The next day you'll be ready to eat and drink again and your leg will feel better. The third day...the fourth day (and so on)...and then you'll be going home and we'll celebrate."

Feed your child snooze foods. Sleep-inducing foods are rich in tryptophan, a biochemical that gets into the brain tissue to help it make sleep-inducing substances, such as melatonin and serotonin. By trial and error you might already know your child's best snooze foods. The favorites are: dairy products, soy foods, poultry, eggs, beans and lentils, nut butters, seafood, sunflower and sesame seeds. Snooze food treats: homemade oatmeal raisin cookies, apple pie and ice cream. (See AskDrSears.com/snoozefoods for recipes.)

TOOL #9: ENJOY THE HELPER'S HIGH

Turn your child's disabilities into abilities. Parenting, in a nutshell, is giving your child the tools to succeed in life. By turning the illness into life-long lessons, you can turn this problem into an opportunity. You can help your child build a tool box of strategies that will enrich his life. Your family support will plant life-long memories and bonds. Perhaps you helped raise a future doctor who will use those tools to help others heal.

Over my 40 years as a doctor I've noticed that patients of all ages, especially children, who turn their medical problem into a growth opportunity, not only survive their disability but thrive in their life skills. Suppose you bring your child into my office for consultation about your child's illness. Our conversation (here using diabetes as an example) would go something like this:

"Susie, you're pretty and smart. What would you like to do better that you can't do now?" I ask.

"I wish I had more energy to play soccer like my friends," Susie confides.

"Okay," I add, "suppose I prescribe Dr. Bill's play better soccer program for you."

Notice I haven't yet said a word about her diabetes to the surprise of her parents. Susie, like all kids, just wants to do the fun things typical kids do.

"Susie, you were born with a genetic quirk called diabetes. It's nobody's fault, it just sometimes happens. While you can't change this quirk, you can control how you react to it and how much it interferes with your life. I'm going to help you build a sort of toolbox that you will carry around with you the rest of your life. And I'm going to show you how to use these tools to use your diabetes to your advantage instead of your disadvantage. Remember, you can't always control circumstances, but you can always control how you react to them. Enough talking, let's get started!"

Susie is on board!

Actually, type I diabetes is a fitting example of how to turn an unpreventable problem into an opportunity to prevent the serious complications from it. As your diabetes doctor will instruct you and your child, children with diabetes who control their blood sugar can lead normal and healthy lives.

Diabetes is the top disease that responds best to *self-management* measures using the four pillars of health you learned about in tool #7:

• Lifestyle: how you live

• Exercise: how you move

• Attitude: how you think

• Nutrition: how you eat

An additional note on diabetes. "Besides the tools in this book, what else can I do to help my child with diabetes live a normal life?" you may ask. The tools for healing from diabetes are very similar to healing from all other illnesses. While medically, children don't "heal" from type I diabetes like they can from type II, they can heal the biochemical quirk – unstable blood sugar – that damages tissues like millions of miniature jackhammers gradually whittling away at them.

Here are tools that I have used for years in my medical practice to turn your child's disability into abilities:

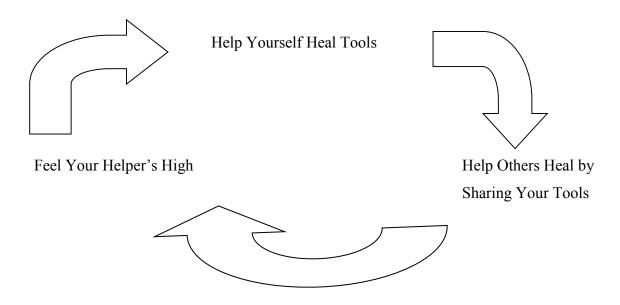
1. Help your child write her own book. Give it a goofy title that you both enjoy, such as *Susie's Sore Bowel Book, Shane's Broken Bones Book, Darron's Diabetes Defier*. You and your child need to become experts in this illness. Before writing it, encourage your child to "talk it." Get her a hand-held recorder and simply have her tell her journey. Then have it typed. Construct her own website and social media channels. Help her start an online chat with other kids. Ask her to write all about her illness, in her own language, and talk about it to her peers. Write about what works: "I felt better when I did..." After a year or so she will have stockpiled her own toolbox full of tools that work for her. Perhaps you could turn this

journal into a published book for kids, and their healers, who are learning to cope with serious illnesses. Remember: learn, teach, help.

2. Help others heal. Teach others what you and your child learned about living with this disease or recovering from this accident. I guarantee you will know more about this illness than most doctors, including me. You both will become experts in this illness. When you use what you've learned to help friends heal, you'll feel the same "helper's high" your doctors and nurses and other healers get (see more explanation of helper's high on page 75).

We took pictures of our son and made them into a book. The ironic thing is, he really likes to look at the book and show it to others to explain all he had to learn. We discovered that if we use his iPad to videotape him getting a minor procedure, like a blood test or x-ray, he was a lot more compliant and less apt to complain. You do have ask the staff if they are okay with you videotaping them doing the procedure; they are usually okay with it.

THE HELPER'S HIGH CYCLE



3. Help your child compensate for compromised parts. A top healing word in your "medicine cabinet" is *compensate*. If your child is born without a functioning body part, say one hand, or loses function of an organ to an accident or illness, focus on what your child is

born *with* instead of without. Children are naturally much more resilient than adults. The younger the child when the "loss" occurs, the better they compensate. What an inspiration when one day I met retired Major League Baseball star pitcher Jim Abbott. Born with a deformed right arm and a stub-like hand, he learned to compensate by strengthening his other hand and throwing 93 mile-an-hour fastballs. Jim is now the star motivator for Special Olympic events, telling kids with all kinds of "deformities" to focus on their "strong arm," not their weak one.

By giving your child as many of these healing tools as you can, those body parts not affected by the illness or accident will grow stronger and work better to compensate for those parts that are compromised.

4. Teach your child – **and yourself** – **the** *Pills and Skills* **model of** *self-care*. We hope this guide helps teach parents and their children a model of self-care we call the pills and skills mindset: in addition to thinking and asking "Doctor, what can our child *take*?" also consider "what can we *do*?" Teach your child this valuable medical mindset: Instead of just reaching for *pills*, also reach inside your body with self-help *skills* to help your body make its own medicines (see page 64).

SPECIAL SITUATIONS: PREPARING YOUR CHILD FOR SURGERY OR HOSPITALIZATION

If you know ahead of time that your child will need major surgery or will be hospitalized for treatment for a major illness, the better you prepare your child's body, the better it will heal. Depending on your child's age and level of understanding, follow these steps:

- 1. Play show and tell. Prepare your child's mind. Explain how the body heals by reading, and doing, the healing tools in this book. Explain the top three healers: healing foods, healing exercise, and healing thoughts. Explain to your child how these three healers will help her get back to school sooner, rejoin the soccer team quicker, be able to dance sooner (or whatever is your child's special something). Remember, your child is thinking, "How quickly can I get back to playing with my friends?" When you make your teaching relevant to children, they will do it.
- 2. **Load up on healing foods.** Again, play show and tell with the healing foods (page 31). "But, Mom, I don't like veggies..." your child may counter. Parents, persevere with *re-shaping your child's tastes* to crave what helps them heal. When you creatively market "the more of these foods you eat, the quicker you will heal, the less you will hurt, and the sooner you can play soccer again," the more likely you are to get the response: "Okay, Dr. Mom, give me more salad!" Called *metabolic programming* by food scientists, you can give your child a crash course in taste reshaping so that he will eventually crave the foods that heal and shun those that don't.

As part of your child's taste reshaping, Dr. Healer advises: Avoid anti-healers, foods and habits that hinder healing. In other words, eat pure. Your child's immune system and healing tissues will thank you.

The better prepared the body, the better it heals. Like training for a triathlon, the better you train, the better your body performs, and the less it hurts. Read and do as much as you can of the steps

in this book before your child enters the hospital so you send your child to the operating room or hospital with her *personal toolbox* of healing tools and show her how to use them as needed.

- 3. **Do practice runs.** Turn to tool #8 and do some practice runs on pain relief: "If you feel that...do this..." Practice according to your child's age and level of understanding. Prepare your child for what it might feel like: "Remember when you hurt your....you may have a headache...stomachache...won't feel like eating...may have difficulty pooping..." Be sure to experiment with what foods are your child's proven favorites and the most intestine-friendly. When the upset gut is recovering from anesthesia is not the time to experiment with new foods. Be sure to experiment with a proven smoothie (see recipe, page 21) because this is likely to be your child's favorite and most intestine-friendly food while in the hospital.
- 4. **KISMIF.** Keep it simple, make it funny. Naturally, your whole family will be stressed, as will your child, worrying about what might happen. Try to be upbeat and not doom and gloom. Tell your child happy expectations after surgery, such as: "Mom is going to make your favorite pie," "Friends are coming to visit," and "After you heal you can look forward to your favorite family activity..."

When he's going into surgery, we make it fun for him! He actually laughs on the way to the operating room. We have him clap his hands to "magically" open the doors going into the OR. We find that he responds to our energy, so we remain calm and lighthearted, and our son does a lot better, even in recovery.

After my surgery, my family planned a sunny vacation to the Caribbean, something I was excited to do. Dad posted pictures of the boat and beaches on the wall in my hospital room. Imagining we would soon be going there helped me get my mind off my worry.

LOVE AND HEALING NOTES TO MY CHILD

Each year millions of kids, and their families, enter Children's hospitals throughout North America, yet they are unprepared, overwhelmed, and uninformed. Parents definitely want to be part of the medical team, so the main question they ask is: "What can I do to help my child heal?" This booklet gives them the answers.

- William Sears, MD, Author and Pediatrician

This guide is a valuable resource for parents and children. All these tools do help kids heal faster.

- Laryn Nolan, mother of a child who underwent 23 surgeries

Help Your Child Heal is filled with priceless information. Don't enter a hospital without it.

- Paola Pederzoli, Nurse, Children's Hospital, Los Angeles

A WOW Book! The section on the healing power of music is so good.

- Ethan Bortnick, age 9, National Television Concert Pianist

Dr. Sears' guide helped me and my family get our priorities straight and helped us all become healers, and it sure helped me heal faster.

- Shane Dhillon, age 13, major contributor to this guide



If your child, family, or other loved ones have been helped by this resource, please contribute to HelpChildHeal.org so more families continue to receive this **free**.

Healing children thank you.