

THE PROMISE OF SWIMMING

The Hand is Always There

8/5/2022

DEDICATED To athletic coaches and teachers of physical discipline

PREFACE

This is a book about my mother, Mary Elizabeth (Beth) Musser. It's written to honor her contributions to life and living, especially her 60-odd-years teaching people how to swim.

It's meant to communicate some of her innovative techniques to help teach non-swimmers to become swimmers, and swimmers how to enjoy the water even more.

It's also meant to show how many people, coaches and teachers influence in their careers.

Beth is gone now; she left us in 2011. However, from the relaxation of her easy chair, over many visits, she provided most of the content, and collaborated in the layout and planning for this book, even choosing the title. We also both sought additional wisdom from many of the thousands of people she taught, coached, swam and coached with.

Through this book, in as few words as possible, she wants to help you and your family to have fun in the water, so that growing old is a "graceful process."

--Chris Musser, Editor.

Introduction to Beth

This book can help you, your friends, and your family learn how to swim, and swim better, and Beth knew a little bit about that.

However, it's not a "How to Manual."

If you want to learn how to swim, it will take a qualified and committed relative or teacher, over an extended period of time, to guide you in the process of learning to swim safely. Take swim lessons, join a swim team, hangout at the YMCA, etc., that's what Beth would say.

Water, especially over your head, can be a dangerous place, and sometimes you're on your own, especially if you are alone.

In a swimming and teaching career that spanned six decades, Beth Musser swam for famous competitive swimming coaches Charlie Sava and Beth Kaufman (the founder of national age group swimming) in the 1930's, for the San Francisco Fairmont Plunge Synchronized Swimming team in the 1940's, alongside Ann Curtis, 1940 Olympic Champion (and friend for many years), and demonstrated synchronized swimming at the opening of the United Nations in San Francisco in 1946.

She taught at Tomahawk Lodge and Silver Hills Country Club in Novato, California and formed the Novato Aquanauts, Novato's first competitive AAU swim team, in her back yard pool in the 1960's.

She taught at College of Marin, Sonoma State College, the Napa Seahawks, Hamilton Voodoos, Petaluma Swim Club, Santa Rosa Neptunes (who had an Olympic Gold Medalist, Maya DiRado, in 2016) and in her own backyard pool for many years.

Beth also competed until late in life. At the age of 74, in 1986, she won 4 medals at the International Masters Competition in Montreal, Canada.

Along the way she coached Olympic Champions, like Rick Demont, (first human to swim the 400 meter freestyle under four minutes, and Olympic Gold Medalist), famous athletes like Julie Moss, (who finished second in the Ironman on her first try), earned a masters degree in Sports Physiology, was interviewed by CBS Evening News on The Sonoma State College pool pad, and taught swimming to more than 30,000 people from the ages of two to 92. Her instruction has ended up saving lives, probably many, in the water, too. We'll list a couple examples of that a little farther on.

Her legacy includes developing many techniques to teach the handicapped, and helping to form the credentials of a number of coaches of prominent swim teams throughout the United States.

From Beth's [Novato Advance](#) Obituary:

"Beth was well known for her more than 60-year-career teaching swimming. She instructed everyone from disabled children and Olympic Champions to 90-year-old grandmothers, and she coached competitive swim teams for youth and seniors. She finished her career coaching Master's Swimming at Sonoma State College, where she was employed for 20 years. In an interview on CBS National Evening News (editors note: *right after Angela Lansbury*) while coaching the Sonoma State College Masters Swim Team, she observed:

"I would like to think that the process of aging is a graceful process," using swimming as "a metaphor for moving through life."

And here's our first tip, what Beth would sometimes call a "nugget" (as in gold), because it's all about the little things, and every tip helps, and Beth collected them over a lifetime. We're going to sprinkle them throughout, realizing that's much better than just listing them at the end (although we'll do that, too, in Chapter Thirteen).

Jeanne Haley, one of Beth's best students and coach of the Novato Riptide swim team, offers advice on competition: "Some of my students may not feel comfortable competing against their friends, or another particular person, so I advise them to compete against 'The Clock.'"

CHAPTER ONE

(GETTING STARTED)

Blowing Bubbles

There's never been a more effective technique to help people get comfortable in the water, especially children, than getting them to blow bubbles underwater with their eyes open, as they watch you, smiling, blowing bubbles back.

This is always done on the student's timetable, not yours.

Editors Note: In the 60 years I helped her teach or watched Beth teach swimming, I never saw her force *anyone* to do *anything* (at least in the *water!*)

You can't teach *anyone* something so difficult and dangerous until you get their complete confidence, safely sitting on the pool steps first. It's about having *fun*, joking around with your students while you are watching them like a *hawk*.

Sometimes slow starters become the best swimmers.

It starts on the top step, or edge of the pool. It's there you'll forge your bond, and look them in the eyes and say "I won't let anything hurt you, there's nothing in here that can hurt you, I just wanted you to see all the fish." And if you do this right, after a pregnant pause;

"What fish?"

(You'd better have a good explanation, too, because you're starting an important relationship here, and you have to demonstrate you know what your doing.)

With your persistence you should be able to gain their interest, and Beth only saw a couple of instances over many years, that she couldn't earn someone's trust, although it can happen.

After a student is *comfortable sitting on the top step*, you can try slowly taking deeper dips with your head in the water in front of them, smiling at them all the time, until you are underwater with your eyes open, blowing bubbles and waving at them. And usually, soon, they will be trying that too.

Ask if they want to hold hands with you, or sit on a step farther down. Take your time. Have fun.

For everyone, young or old, just dipping another step is a mountain.

Until they're under water, looking at you, waving back.

After that's done you can try the hard stuff: Little girls like to have tea parties under water where everyone serves tea to each other while they blow bubbles. I like to prepare lunch and serve little boys imaginary grilled cheese sandwiches and then we pretend to eat them with our mouths open.

Even adults respond to performing some mundane task, comically, underwater while blowing bubbles, always with eyes open.

This means you have to start *without goggles, for their safety*, because goggles come off, or fill with water, easily.

And a good swimmer will almost NEVER hold her breath. You ALWAYS blow bubbles, slowly, while you are under water. The two states of breathing while swimming are: 1) take a breath 2) blow bubbles slowly until you need another breath.

You actually use up less oxygen, prepare better for the next breath, and lower the carbon-dioxide in your blood (the main stimulus to breathe) when you blow bubbles.

We're going to call blowing bubbles "Guiding Principal Number One."

So, relax. Blow bubbles. Have fun!

And here's a great nugget about setting expectations: Kristine Miklos Tayler grew up, up the street from Beth and her family (and her pool.) Beth taught Kristine and her sister to swim, often with the help of the editor, who helped teach them to back float, mowed their lawn, and sometimes baby-sat, too.

Kristine still swims daily, in between traveling all over the world and showing friends her pictures from exotic locales.

Kristine is reminded of her favorite nugget by recent advice from Jeff Float (a former Olympian, Gold Medalist, and World Record Holder) to her grand daughter, who swims for storied Arden Hills: If you want to win a race, or learn a difficult skill, you have to imagine doing that, first. You have to *expect* that, for it to happen.

Whether "Cyber Cybernetics," Norman Vincent Peale's "The Power of Positive Thinking," Michael Jordan advising setting short-term goals, *or prayer*, you have to want to improve, you should *expect* to improve, you have to *imagine* yourself doing it, before you can do it.

Beth used to ask parents to ask their kids to *imagine* swimming across the pool, winning a race, etc. when they went to bed at night.

CHAPTER TWO

The Bamboo Pole

No image captures Beth's teaching technique quite as well as a picture of her walking a pool deck with a bamboo pole.

She decided early on she wasn't going to jump into the water every time a pupil was struggling, and if you teach them correctly, they will struggle in the water.

The Boy Scouts of America call it, "Reach, Throw, Row, Go," reach being the safest and easiest lifesaving action, especially if you happen to be holding a bamboo pole.

However, safety was not the pole's only function for Beth.

Indeed, the pole was the key to her entire technique. With it in her hands she would take non-swimmers into the deep end of a swimming pool without a life vest or flotation device, many times on their very first lesson. Here, **always with a confident helper treading water next to them**, she'd teach them to swim unassisted from the bottom of a 9-foot pool to the surface, paddle over and grab onto the side, and climb out; *water safe, on their first lesson.*

The sense of confidence that this instilled in her students from the beginning, and the example that this set, cannot be underestimated.

Beth's techniques were developed out of necessity. She had to work fast. Many of her pupils were the children of ranchers who had ponds on their property, or families that were leaving on vacation to such water venues as Stinson Beach, Lake Berryessa, or the Russian River in Northern California.

She knew that with only an eight-lesson schedule, she might be lucky to finish six or seven before her pupils left town for pools, rivers, lakes and beaches.

Beth viewed this as a great responsibility. She knew she had to develop a way to get them water-safe, *fast*, so she did.

Her techniques reflected a number of guiding principles. Another one, call it Guiding Principal Number Two, was that flotation devices, *especially* life vests, were only for playtime. They were never allowed in the pool during a lesson.

You can't learn to swim with a life preserver on.

However, even without one, beginners love to be towed around a swimming pool at the end of a pole by an attentive adult. So, ***always with a helper treading water in the pool next to them***, and after she knew her students were comfortable putting their face in the water and blowing bubbles with their eyes open on the pool's shallow steps, she would ask them to grab onto the pole one at a time and she would make sounds like a choo-choo train and slowly drag them down the side of the pool to the deep (excuse me, 'other') end.

Then, she'd say, "OK, now when you're ready, (*name here*), just put your hands on the edge of the pool and hang there, and I'll stay right here watching you with the pole next to you for you to grab on to it, if you want to," and she'd kneel down at the side of the pool next to them, sometimes holding their hands, until they got comfortable.

When she'd gotten sometimes three or four of them comfortably hanging on the edge of the pool, she'd turn to their parents watching apprehensively from the benches and chairs and say, "Wow, isn't that great, they're in the *other* end of the pool on their very first lesson, and I think that deserves a GREAT BIG ROUND OF APPLAUSE," and everyone would clap.

This was Guiding Principal Number Three of Beth's teaching technique: immediate enthusiastic acknowledgment of all her student's efforts.

Then, she would ask them one at a time to climb out of the pool unassisted, so she (and *they*) knew they could do that.

Next, she'd push the bamboo pole down into the water and it would touch bottom 9 feet down and quickly pop back up to the surface, and she would say, "Look what happened to the pole, it came right back up, know why?" And some sharp student would usually say, "Because it has air in it?" And she would tell them "Yes, and you do too." And then she would ask, "Do you think if you went down you would come up?"

Sometimes she'd ask them how steel ships weighing many thousands of tons floated on the water, illustrating the same principle.

Then she would have each child in turn, ***when they were comfortable***, grab the pole, blow bubbles and pull themselves a hand or two down the pole under water and back up again, grabbing onto the side. *Whether or not they accomplished this, everyone would clap again, even for "just trying."*

And then she'd suggest to the bravest kids that they blow bubbles, pull themselves down the pole hand over hand more and more, until they touched bottom, and then pull themselves back up to the surface.

After they did this, it usually didn't take her long to get the most capable students to climb down the pole, let go and kick to the surface, where they'd dog-paddle to the side and climb out.

And when they could do that, they were (well on their way to being) water safe, many times in their first lesson.

So, if you're serious about teaching people how to swim (especially more than one at a time), get a stout pole that floats and carry it around with you, really.

Beth had other uses for the bamboo pole, too. But that's for tips in Chapter Thirteen.

The following is not so much a nugget, as a testimonial to Beth's persistence and teaching ability, courtesy of Lisa Gustafson:

"I was an overweight, shy kid without many friends. I was raised by my grandparents, who lived down the street from your mom. I think I wound up going to your mom's for lessons because my cousin had gone and her parents thought I should know how to swim. Now, this was a long time ago--probably around mid-sixties sometime.

Anyway, I remember your house and your mom and the pool. I also remember getting my first swimsuit and cap for my lessons. I was a chubby little girl and swimming was very scary to me. The memory I'm going to share here is a vivid one, even after all these years:

On the very 1st day of swim lessons, my grandma, Nana, walked me to your house (she didn't drive). I remember wearing my swimsuit and cap, and sitting out by the pool with her. At some point, a student who was working with your mom across the pool jumped into the water.

For some unknown reason, I remember thinking that I was supposed to do the same thing. I wound up jumping into the deep end of the pool before anybody could stop me. Of course, since that was the first time I'd EVER been in a pool, I quickly started gasping for breath and flailing in the water. I remember being submerged under the water, and in my young child mind, I was sure I was gonna die! My Nana was hysterical by this time, but she couldn't swim, either. After what seemed like a long time (but probably happened very quickly) I was suddenly yanked up to the surface by the big hand of your mother! She'd rushed in to grab me. I also can recall her (after making sure I was gonna be alright) telling me NEVER to jump in without someone there to help me!

Of course, because I was a shy, socially awkward kid who'd never done anything, I was then terrified to ever go near the water again! Your mother, however, had other plans. She told me that I could learn and that one day I'd grow to love swimming. After that incident, my Nana took me home, but then decided that I needed to go back. Ultimately, with a LOT of patience and encouragement, your mom taught me how to swim and not be afraid.

I remember going for lessons for a LONG time, and eventually I learned to love swimming. If not for your mom, I may have never learned how. Anyway I remember how she looked--her hair and her tan and her swimmer's body. I was a fat, pale little girl, and she was really different than anybody I'd ever known. I'm not sure how I remember that experience so vividly after all these years, but I'm glad I do. Your mom was a real-life hero to me. ♥

CHAPTER THREE

Having Fun in the Water Isn't a Joke

If it wasn't fun or enjoyable for her students, Beth didn't do it.

Not that learning to swim isn't a lot of hard work; just that Beth insisted that everyone *liked* the work.

She gained an appreciation for this, Guiding Principal Number Four, from teaching her own four small children to swim, and from her experiences growing up swimming on competitive and synchronized-swimming teams in San Francisco in the 1930's and 1940's.

She knew that the difference between children enjoying her lessons or not, was usually the difference between their learning to swim or not.

Beth started with instructions to the parents when they booked swim lessons over the telephone. She'd admonish, "Do not tell your kids they're going to Beth's house to learn how to swim. Tell them they're going to Beth's house to have fun in the water." Parents were required to keep things cheerful with anything that had to do with swimming and Beth's lessons.

Editor's note: From talking with Beth, and while drafting this chapter and reminiscing, I was surprised how little attention was ever paid to explicit "fun and games," except for an occasional session of Marco Polo, etc.

Beth's lessons were "fun," because they were safe, healthy, social, and gave children confidence in the water and in their lives.

But Beth knew the mechanics, too. When little children walked away from her pool in the early days they would have a colored star sticking to their foreheads, and later on, they'd receive a stamp of some comic figure as a reward for their efforts (which lasted a lot longer than sticky stars!)

Here's a teaching nugget from:

CHAPTER FOUR

Technique is a Very Personal Thing

Proper swimming technique can mean different things to different people.

You have a different body from the person swimming next to you, but in the water there's a place for everyone.

None of us are built the same: my feet may not be as turned out as yours are, making it more difficult for me to do breast stroke (or ballet).

People have had a variety of experiences in the water: you may have been raised in Europe, where the breast stroke is taught before freestyle, and you learned freestyle breathing relatively late in life.

People have been taught differently, too: you may have had the benefit of a competitive or professional coach or teacher, or maybe none at all.

You may have a disability, or longer or shorter legs and arms than your teachers and peers.

The point is to find out what works for you.

Good technique also changes over time, strokes and practice evolve. For many years backstrokers were disqualified in the Olympics if they dipped their shoulders--now you're supposed to do that!

Don't get "hung up" on a particular technique; learn as many as you can. Your movement in the water should work for your body; whether you're a beginner or an elite athlete.

However, some principals should be taught to everyone. For example, one of the most important things to teach, especially to the very young, is *counting*. We'll call this Guiding Principal Number Five.

There's probably no better way to learn physical coordination than counting while you swim. When people learn to do one movement with their legs, a different movement with their arms, a third breathing, and those movements must be coordinated through their brain, it promotes the physical coordination that will be important to that individual for the rest of their life, no matter what activities they perform.

If you want to get technical, in kinesiology it's called the hetero-lateral-neurological-cross crawl, look it up.

However, all success comes from practice, doesn't it?

Swim as much as you can, whenever you can, until you're good at it, and (at least in the beginning) count while you swim.

We really like this nugget, from:

CHAPTER FIVE

"Freestyle"

What is usually termed "freestyle" swimming, used to be called the 6-beat American Crawl. Each arm stroke is matched with 3 beats of kick, the entire cycle (for the legs) being, left-right-left, right-left-right, as first the left, then the right arm circles the body. The kick is also sometimes called the flutter kick. However, become comfortable with the fact that for some people, it's better kicking one or two beats to each arm cycle, instead of three.

Beth started teaching her students "freestyle," by teaching them to do the "windmill," with their arms. This can be learned outside of the water. She would ask parents to stand their children in front of a mirror, bend the top of their bodies forward and have them circle their arms around their head as they touch an imaginary balloon in the sky, and then down as far as possible to brush their thighs, keeping their arms straight and moving them like a windmill, one arm up while the other is down. Some kids get the windmill right off the bat, some don't.

Then after they've learned the straight-armed windmill, children have a natural ability to raise their elbows and put their fingertips in the water first, and that's a very good thing, called high elbow technique, with makes for a relaxed stroke.

If they were learning to breathe, she would ask them to turn their heads “like a doorknob,” and breathe “under the arm.”

Tell them to reach over an imaginary barrel. Have them stand on the pool deck and hold their elbow in the air like it’s hanging on a clothesline. You can tell them their elbow is a puppet on a string to get them to relax when their elbow is in the air.

However, there have been some very successful Olympic swimmers that can’t get their elbows in the air, especially distance swimmers and backstrokers.

In a mature *competitive* “freestyle,” the hand should reach as far as possible in front of the body when it enters the water with the shoulder dipping as you reach ahead, and then turn sideways, inward, and pull down in line with and underneath the body, fingers closed, finally exiting the water at the bottom of your reach, brushing the thigh. The elbow exits the water first and begins the recovery stroke.

The elbow should be as high as possible in the air, and the hand should almost brush the ear as the arm moves to the front, without straining. This should be done as relaxed as possible, especially the fingers, which should separate and be very relaxed for the recovery stroke, as you kick your legs in time, counting, “123, 456, 123, 456, left-right-left, right-left-right . . .”

The water should be right about at the line of your eyebrows. Although some people may feel more relaxed looking down (like people with bad backs), you have to be able to see where you’re going.

Here’s another nugget from a great freestyle swimmer:

CHAPTER SIX

Breast Stroke and Elementary Backstroke

Breaststroke

Most people are born with their feet turned out, and this makes them natural breast stokers, so if you start them early enough they will have a natural kick. We all understand how a frog kicks. If you have one handy, set a frog or toad in the water, and watch him go.

Pull (1) and glide (2), the progression is: arms, head, kick, glide. Bring both hands under the chin in the recovery stroke.

To kick properly, you need flexibility from the knees on down.

”Tell your students to drop their knees first and then make a sweeping circle motion with the lower legs. Drop and sweep, drop and sweep. Pretend you’re a frog, though the tendency is to kick out to the sides. Rhythm is very important. Do not practice this with fins on. Something that can help a student with their breaststroke technique is learning the elementary backstroke, too, as they can watch their legs move while they swim, although, of course, in the backstroke the arms go straight out to the side to start the power stroke.”

Hold the glide as long as you can in practice. Breaststroke is all about the glide. Go as far as you can before taking another stroke.

Try to swim to the end of the pool in the least strokes possible.

Elementary Backstroke

The main thing to remember about *elementary backstroke*, aside from getting as comfortable as possible doing a “frog kick,” is to push your arms straight out from your body when you start your power stroke, and then sweep them down. Otherwise (if you put your arms over your head somewhere), you’re doing an inverted breast stroke, a completely different beast, and a harder stroke to learn.

The elementary backstroke is probably (along with the sidestroke) ***the most important stroke to learn*** for safety reasons. Why? Because it’s easy to do, you’re on your back and can breathe, and (especially when you relax) you can get help from your body’s natural tendency to float.

Here’s a great nugget from Larry Lack, who advises, while swimming breaststroke, to take a late breath:

“Take a late breath at the end of the arm press when the hands are coming in, instead of at the beginning of the arm stroke. Just raise the head enough to get a breath, and then lower it again. And keep your elbows up.”

What is the benefit of the late breath?

Larry explains a late breath is a *quick* breath, and the less time you spend out of water to breathe, the less resistance there is; the faster you go and the less energy you use.

Beth often extolled the benefits swimming sports competition brought to swimming more smoothly and strongly with less effort, and she was scientific about stroke.

However, we both knew some very strong swimmers (e. g. abalone and urchin divers, and San Francisco bay swimmers, etc.), who never swam competitively, and swimming competitively is certainly not required to be powerful in the water.

And realize that even in competition the rules change. Larry’s advice is an acknowledgment of this, because we can remember watching the Olympics with Beth on the OI’ Montgomery Ward 34” in the 1960’s, when in a final, a world class swimmer was disqualified because her head went underwater.

Larry is a retired U. S. Army Colonel, and was the California State Teacher of the Year in Biology in 1988.

He is also in the Marin County Athletics Hall of Fame.

He was the Head Swim Coach of the Petaluma Swim Club for many years, and hired Beth as one of his assistant instructors.

The Petaluma Swim Club was a behemoth in Northern California Swimming, and turned out swimmers like Dave Salo, who was an assistant U. S. Woman’s Swimming Coach for the London and Beijing Olympics and wrote the book on U. S. C. Swimming.

Larry says Beth was the most “motherly” of all of his coaches. Continually supportive and protective, that was Beth’s style. A good person to teach you a difficult skill and help you to grow and flourish.

Larry's San Rafael High School Swimming teams were undefeated for six straight years, and his team won the Northern California Relays in 1965.

Editor's note: I was the fastest B-Butterflyer in dual meets for the first four or five contests in 1965 at Novato High School. I was turning low 30's in the Fifty. When we met San Rafael I lost to one of Larry's swimmers, Tom Knopf, by nine seconds. I will never forget that humiliation. Larry's team never lost another dual meet for the rest of my Novato High School swimming career.

Larry is retired now, but occasionally teaches fly-fishing to private customers. You can book him at <https://fromstarttofish.com/>.

CHAPTER SEVEN

Backstroke

In backstroke, take advantage of the straight arm.

Start your students out by having them kick on their back away from you while they are looking at you. The arm goes in the water straight behind the head, while dipping the shoulder a bit, and it enters the water, little finger first. (Some people may have difficulty doing this).

Have them imagine throwing a ball under the water at their legs. The arm will bend under the water, just like in freestyle. Pretend that you are pulling yourself on a rope, hand over hand to the other end of the pool. This also helps students to feel their "pull" in the water. Let the hand relax as it sweeps down past your body, pushing the water towards your feet, on the power stroke.

Teach a six-beat kick, three-beats for each arm stroke, but after they are comfortable doing this, let them find a kick that works for them; some people only kick one beat per arm, instead of three.

You can count: one-two, one-two, from the beginning to the end of the power stroke. (This tip courtesy Charlie Sava, per Beth.)

Arch the back without becoming uncomfortable; the head should lean comfortably forward. Relax.

Always swim with other people around. For your safety and theirs.

"Kick, kick, kick! Pull, pull, pull!" Beth would yell in encouragement.

Here's a nugget you backstrokers might find valuable:

CHAPTER EIGHT

Butterfly Stroke

The butterfly is the most beautiful stroke to watch when swam well, but that's the problem, how to look like you know what you're doing.

In the butterfly it's all about the rhythm, and it's helpful to remember that the body always follows the head. Push off from the side of the pool with your arms straight ahead of you. Pull the arms toward your chest to the side and then, as you cup the water with your hands, pulling straight down towards you. This will tend to incline your body a little bit out of the water, and when that happens, raise your head even more and take a quick breath.

The legs are doing the dolphin kick, with the legs together, moving as one. The count is: one, two, one, two (or one, two THREE FOUR, one two, THREE FOUR).

By the way, the butterfly can also be done effectively with a frog kick, and that's the way the stroke was originally swam.

Practice moving through the water like a fish, without stroking, with your arms by your side, up and down, up and down, with your head moving first and the rest of the body following, then add the arms. If you're really brave you can try your arm pulls with a kick-board between your legs, etc.

And, remember there are many good instructional videos of the different strokes on the internet at USA Swimming and other websites.

Here's a nugget from a top butterflyer:

CHAPTER NINE

Survival Strokes: Sidestroke, Treading Water, Dog-Paddling, Drown-Proofing

There's a whole canon of strokes that involve surviving in the water or traveling while surviving in the water, many of them using the scissors kick, frog kick, underwater arm pulls and circles.

They include the Elementary Back Stroke, Breaststroke (swam slowly, especially because it's easy to see where you're going), Sidestroke or Drown-Proofing (treading water very slowly).

The key concept here, Guiding Principal Number Six, is conservation of energy.

One of Beth's most used phrases was "Slow down, you'll get there faster."

What she meant by this was stop thrashing the water and struggling by trying to hold your head up and kicking from the knee, etc. Kick from the thigh, slowly but deeply, lie down in the water, rely on your body's natural buoyancy, and learn to RELAX.

If you slow down and concentrate on your stroke, you'll get to the end of the pool faster, and not have to breathe as much to do it.

And if you're going to be swimming for a while because you've fallen out of a boat, or have been carried out from a beach by a rip current, etc. especially along with someone you feel a need to protect, too, you might as well get as comfortable as possible as quickly as possible and try to enjoy it. You'll live longer, and they will too.

By the way, don't dog paddle—that uses up too much energy. Move your arms in a circular motion in the water in front of you, slowly. Take a quick, full breath (easier to do if there aren't waves, or high winds, or a quick current or chop on the water) then rest your head in the water and float for a while before taking another breath. Get horizontal as soon as you can, either on your back or with your face in the water, only raising the head to take a breath when necessary. Relax.

When you do the side stroke, lay down in the water on the side you are most comfortable on, or (better) facing the shore, but be able to switch sides (practice this) as necessary in case you get a cramp or are injured in an arm or a leg, etc.

The hands extend in a forward circle, one arm circling above the other, pulling you through the water, one hand forward while the other circles in the recovery stroke in front of your chest.

And here's a nugget from someone who knows a little bit about water survival, who implores everyone to learn the side stroke for their own safety:

Michael Anderson was a five-tour Navy SEAL in Viet-Nam and Korea, who piloted up to five additional SEALs to their assignments and back in a SDV (Swimmer Delivery Vehicle) for miles many times, while underwater wearing scuba gear.

Born at Pensacola Naval Air Station where his father was stationed, he lived on Kwajalein Atoll in the Marshall islands from 1958 to 1960, 100 yards from the beach, and spent his formative years in the water, before returning to Northern California. He knows as much about swimming as anyone. He now lives in San Diego.

Although he doesn't recall meeting Beth, he swam with three of her sons on the mid-1960's Novato High School Swimming and Diving Team in a pool she helped design, for a coach she was advising, and he would have walked by her many times as Beth's Novato Aquanauts practice began before Mike was off the pool pad. Mike was a diver, and a good one, too.

Michael swam around San Clemente Island in Los Angeles as part of his SEAL training, doing the side stroke the entire time.

On how he became a SEAL, Michael relates he was in underwater demolition, and was sitting in a room in the Philippines talking with a friend when an officer walked in and informed them they were both now SEALs. When he tried to protest, the officer said: "You volunteer once (for UDT) and you volunteer for everything."

He relates drown-proofing was developed originally in response to the fact the Viet-Cong were binding captured American servicemen and throwing them into rivers. Michael had to qualify by not just staying afloat, but *swimming*, in a 20-foot-deep pool with his legs bound and his arms tied behind his back.

Now that's drown-proofing.

The technique is taught by the American Red Cross, and is described on their website as "A method of staying afloat by using a minimum amount of energy. It may be kept up for hours even by non-swimmers.

Details of the drown-proofing technique may be obtained from local chapters of the American Red Cross."

All of these strokes can also be used to help isolate and heal an injured extremity.

Move the hurt “wheel” as little as possible, using your other arms and legs more frequently. And because this exercise is performed horizontally, you’ll get the healing benefits of aerobic exercise much more quickly and with much less risk than with land-based exercise, in half the workout time.

This because you’re not fighting gravity to lift your blood up to your heart and lungs to get oxygen, and circulate it through your kidneys, liver and colon to eliminate waste.

CHAPTER TEN

Health, Competition, Sportsmanship, Companionship

Swimming can make you more successful in life. At the very least, if you swim regularly, swimming will help you *feel* more successful, whether you are or not.

Why is this? Oxygen.

The more you get, the better you feel and the healthier you are. It’s amazing how 40 quick laps of a 25-yard pool can help you solve a problem you’ve been working on for days, usually by seeing an option that you didn’t see before.

Besides, you look better, need less sleep, and heal faster when you’re sick. What’s not to like?

Swimming has elemental and primary social benefits, too. An organized swim team is a healthy place for young (and older) people to be. Young, healthy people, best friends until the race starts, and when the race is over, even if they lose, giving it up quickly with a very healthy attitude: “I tried, I want to get better, and I know I’m not going to win them all. Maybe I’ll just try harder.”

Healthy and engaging, swimming and other physical competition teaches you from an early age how to handle success and defeat as you go through life.

And heck, competition is the nature of the American economic system, and is really the only thing we do in life, according to *Charles Darwin and other scientists. We compete our entire lives for jobs, romantic partners, recognition and attention, etc.*

So, don’t worry about wanting to *win* at swimming, that’s a very, very good thing.

Also, swimming is the *most social athletic endeavor* there is. Why?

SWIMMING CANNOT BE PERFORMED SAFELY ALONE.

Let me repeat that:

SWIMMING CANNOT BE PERFORMED SAFELY ALONE.

It’s the *most* social activity in life when performed with the greatest safety, ***because the most effective technique ever developed to be safe in the water is the buddy system, by the Boy Scouts of America.***

Here’s a description of the Buddy System from the Boy Scouts of America Website:

“Buddy System

Every participant is paired with another. Buddies stay together, monitor each other, and alert the safety team if either needs assistance or is missing. Buddies check into and out of the area together.

Buddies are normally in the same ability group and remain in their assigned area. If they are not of the same ability group, then they swim in the area assigned to the buddy with the lesser ability.

A buddy check reminds participants of their obligation to monitor their buddies and indicates how closely the buddies are keeping track of each other. Roughly every 10 minutes, or as needed to keep the buddies together, the lookout, or other person designated by the supervisor, gives an audible signal, such as a single whistle blast, and a call for “Buddies.” Buddies are expected to raise each other’s hand before completion of a slow, audible count to 10. Buddies who take longer to find each other should be reminded of their responsibility for the other’s safety.

Once everyone has a buddy, a count is made by area and compared with the total number known to be in the water. After the count is confirmed, a signal is given to resume swimming.”

Remember, this safety technique also extends to general outdoor safety, or safety in general.

When was the last time you heard about TWO Boy Scouts being lost in the woods?

Bring it on; nugget by:

CHAPTER ELEVEN

Age is Just a Number

This is Chris’s nugget, and although I still sting with embarrassment when I recall this, it pretty much sums up what we’re doing here.

One of Beth’s favorite sayings was: “Age is just a number.” she said this many times over many years to everyone she met.

And, with Beth as a Mom, I grew up in a competitive, athletic environment with the conviction that fitness has nothing to do with age, it just has to do with *time spent working out*.

Like many boys who grew up in the time of “Karate Kid,” and Bruce Lee, and “Kung-Fu” I had a fascination with physical fitness and martial arts. And I read several books over the years about legends in China, of old (60-70 years), frail men going up into the hills and practicing meditation and Tai-Chi for a couple of years then coming back down and defeating everyone who challenged them.

And, even after practicing Guang Ping Tai-Chi for 40 years, after being taught by a man who wrote the book (“Wave Hands Like Clouds” on Amazon by Li Po and Ananda), I thought “How can this be true?”

Beth proved it to me one day when I swam in the lane next to her in a new pool at Sonoma State College where she taught (that I believe Beth also had a hand in designing).

Beth had invited me up to workout with her one evening when I was living in Petaluma.

I was swimming a mile every other day, before doing another land-based workout, having come back from a back injury (and three surgeries) after popping a disk doing a martial arts workout (specifically a moving back bend). I was 36 years old, and back in (I thought) very good shape.

Beth was 74, and in great shape.

She had been swimming all her life, like me, and after I experienced a couple frustrating years when I couldn’t work out regularly because of back pain (and wasn’t swimming), she told me: “Get back in the pool.” I had finally taken her advice, for several years at that time, and was doing so well I was in the process of looking for a good dojo to start training seriously again.

Beth was training to compete in the International Masters Swimming Competition held in Montreal, Canada, in 1986.

After many years of coaching she wanted to make a mark in swimming herself. She confided in me she was close to the world record for women 70-75 years old for the mile: 1500 meters (66 laps in a 25-yard pool). I thought to myself, heck, how fast can that be?

I’ll never forget getting into the pool to swim next to her—practice was just starting, and she was in lane one so I took lane two.

As I was getting in, I noticed a friend of mine, waving at me from lane four or five, and I waved back.

I said “Hi, Mom,” and we started swimming.

After a few slow laps to loosen up (usually takes a good swimmer 20 or more), I noticed that, not only was she keeping up with me, but she always seemed to enter her turn before I did.

I thought, “In your dreams,” and sped up.

Another 10 or 20 laps and she started pulling ahead of me so far that I couldn't even see her turn. In fact, soon, she was swimming four laps for my three, no matter how hard I tried, and she wasn't stopping to rest, either.

I remember waiting for a couple laps resting by the side of the pool, and when she turned, swimming next to her as fast as I could for two laps--50 yards, and once again, she turned so far ahead of me I couldn't see her.

I also remember looking around, embarrassed, wondering if anyone was watching. The next time she passed by I told her, "I'm going to go swim with Bob, in lane four, I'll see you after practice."

At 74, concerns about Beth's blood pressure, oxygen saturation level, blood sugar, BMI, or any of another 1,000 health metrics were laughable.

And when she came home from that competition, with lots of medals and ribbons and articles in the local papers, etc. I sat down to talk with her one night.

Specifically, I hadn't heard or read anything about the mile; so I asked her about that.

There was a long, pregnant pause, then she described the race; telling me she was way ahead in her heat, but at the last turn, gulped water and ended up last—she told me she had finished 13th over all.

If you know any thing about how heats are seeded, you know it's all about the times, and she may have been in the fastest heat.

And that means until the last turn, swimming a mile against the greatest swimmers in the world, including former Olympians, she was quite possibly the fastest 70-75 year old woman ever.

And that was good enough for her, even though she had tried her best to win.

If you want to be healthy, get in a pool.

CHAPTER TWELVE

The Hand is Always There

Editor's note: I had wanted to call this book "The Miracle of Swimming." And that was our working title, because, like Beth, I had seen the water completely transform people: a child without legs becoming a competent swimmer, a child with neuro-muscular difficulties becoming a nationally-ranked athlete, people saving other people's lives in the water, making the old young again.

But when Beth realized, after a few sessions, that this was a serious project and one of us would see it to completion, she wouldn't let me call it that. So, we talked it over for a while, and finally the word "promise" appeared. She liked that.

Although Beth believed faithfully in God, she also believed that God helped those who helped themselves, and a benefit always came from doing the work, and being prepared.

It wasn't that Beth had any trouble acknowledging miracles, it was just that, with her attitude, she always expected everything to turn out all right.

FOUNDATIONAL NUGGET: Probably there's a single, most important tip to get your students to trust you by insuring their safety, and that is that you are always close, always looking at them, and never distracted.

And your hand is always there when they reach out for it.

Here's a nugget from just one of the people we **know of** who saved a life because of Beth's instruction:

CHAPTER THIRTEEN

More Nuggets

Neither Beth nor I are doctors, and nothing above (or below) should be construed as medical advice. Please consult your doctor before beginning an exercise regimen.

And the exercise program is primary: if you follow a regular every-other-day workout everything else will turn out all right, too—you'll sleep better, stop taking unnecessary medications, and eat better. (You' may find yourself, like I did, preferring home-baked bread with butter and fresh preserves to jelly filled donuts, etc.) You'll start eating more fresh fruit and vegetables than you do now, and stop eating as much red meat--also great for your health in general, as well as the environment.

And you'll discover you can party more without hurting yourself, too!

And also remember:

You can't swim tense. Relaxation is the key, because if you don't relax while you swim, you will swim poorly and waste energy. Remember, "The slower you swim, the faster you go." Feel yourself floating in the water before you kick or take a stroke.

Just like counting, have your students practice swimming freestyle slowly and in order: push out from the wall with both legs, fingertips first, glide for a couple of seconds, then start kicking the legs, counting: 123, 456, 123, 456, take a couple of strokes, then add the breathing. Because you are breathing last and swimming slowly, this will cause you to relax.

There is always a power stroke and a recovery stroke. In the recovery stroke in "freestyle," the arm should be completely relaxed as it swings through the air and is then placed in front of your body as far as possible as you dip the shoulder a bit, where and when it becomes the power arm, while the other arm now is in recovery

Half of your body is relaxing while the other half works, and that is the key to technique and distance. You might consider taking a meditation class.

Float. Then start swimming. Feel the water support you. Learn to pull yourself through the water as relaxed as possible.

Use the whole leg. It's important to kick from the thighs. When you do that, you will not only go faster and get a better workout (the thigh muscle being the largest in the body, using the most oxygen when it moves), but the rest of the leg and foot will move naturally, too.

Swimming can be especially valuable to people with sore backs; the reaching forward and pulling motions of swimming, especially freestyle, can stretch the spine without incurring injury, (but watch out for those turns.)

Kicking should not always take a lot of effort. The legs should beat with a relaxed, deep motion that conserves as much energy as possible. Get a kick board. Practice just kicking, without the arms, as slowly as possible, as quickly as possible.

Don't start kids in lessons until after they're at least 18 months old, because their lungs aren't developed enough to take the occasional "water down the wrong pipe," that will happen when you learn how to swim.

Never force anyone to do anything, ever, to do with swimming.

Practice a variety of swimming tasks, games and skills.

Pat your students on the back; congratulate them often and effusively. Tell them they're progressing even when they're not!

Be blind to race, religion, gender, social status or any other differences between your pupils; all of your students must feel just as important as everyone else in class. This will teach them sportsmanship.

Encourage your students to help each other. Ask your older students to help the younger students with their technique. Kids will eat this up, and make them respect and care for each other.

Mainstream handicapped children with regular kids to give everyone an appreciation for each other's disabilities, as well as the accomplishments of the handicapped.

As they get better, working with fins is also good for swimming fitness and technique. They help the feet float to the surface in a natural position, making you relax, and this also helps develop the thighs.

Neither diving nor swimming is head first, as any kid will tell you. It's fingertips first.

Again, kick from the thigh, and the rest of the leg will follow properly and naturally.

NEVER use the words "deep end" or "drown" in conversations with kids.

Teach people with their peers. Try to have everyone in your lesson around the same age and ability.

It's always nice to have someone around who is really, really, good, to use as an example. This is one of the tasks your assistant performs.

Try silly strokes (like sculling with your hands by the side while you're on your back as you bring your knees to your chest and paddle your feet in the water, etc.) and other synchronized-swimming techniques to develop their control.

Breathing in freestyle is under-the-arm.

As they get better, have your students kick their legs and scull with their arms until they can raise themselves up in the water, which is a good swimming strength building technique. Tell them to try and get their belly-buttons out of the water. Any water polo player, synchronized swimmer, competitive swimmer, etc. will be very familiar with this exercise, and it's non-typical and entertaining.

Kids are also naturally competitive, so try racing your students, starting the faster kids last so that everyone will get a chance to finish first.

At the end of the lesson always allow playtime for 10-15 minutes; now you can bring in the tubes and life vests, masks and snorkels, and dive for rubber dog rings and bones. The students will see this as a reward for their efforts, and try harder in the next lesson if they know they can look forward to playtime.

Variety!

Provide emotional support and your students will develop confidence. Ask them about their lives, school and play that has nothing to do with swimming. Show an interest in them.

Always watch your children "like a hawk" as Beth used to say, especially younger children, whether there is a lifeguard present or not.

It is a regular occurrence that a good swim teacher or lifeguard will become momentarily distracted, and that always seems to be the time that a child will choose to overextend, and find himself in trouble in the water. "Bang them over the head," constantly, with the fact that if they get into trouble and no one sees them, they're on their own.

Always swim with other people around, and if possible, a buddy. Constantly take the time to visually check on your buddy or the other people swimming near you.

If a child does gulp water, don't make a big deal out of it. If you swim for a lifetime, you will gulp water many times. A good swimmer learns how to handle this fact of life. When a child gets water in their lungs, have them exit the pool and lift both arms straight over their heads, helping clear the trachea as they cough. Do not let them back into the pool until you are sure they are OK.

However, if a student gulps water and becomes afraid, you will have to back off for a while, and coax the student as soon as possible after that to get "back on the horse." ("Get the horse in the water?")

The bamboo pole can be used very effectively to teach diving.

Diving is all about the "lift" you get, whether springing from the side of a pool or diving from a board or platform. Beth used to start her students out making them clear a bamboo pole she held out to block them from entering the pool, usually starting at about the ankle/knee.

As they were successful springing over the pole, fingertips first, without touching it, she would raise it progressively higher as they advanced. She even used this technique effectively by reaching the pole from the side of her pool over the end of her three foot high diving board.

It is the editor's experience, backed up by Beth, that, depending on the age or maturity of the child, many times when you ask a little girl to do something, she'll do it to the best of her ability.

*However, when you ask a little boy to do something, he'll do **the exact opposite**.*

*Kids will try to "show off" to their parents or whoever is watching. This can help you motivate your students. However, **do not** let this tendency get out of control.*

Chat with parents constantly and ask them to always sound positive when talking about swimming with their children

Teach young children breathing by leaning over and showing them how to turn their heads to the side like a doorknob

It's VERY IMPORTANT to cherry-pick your assistants to be responsible, attentive, positive young adults who like people and like to teach.

If you practice all of the above, you will realize the true *promise of swimming*:

Perfect Health!

The End

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