

Quick Guide To FITNESS

The "Tools" Of Recovery

Almost immediately after my Stroke, exercise played a major roll in my short and long term recovery.

My body had rapidly become <u>deconditioned</u> from neglect, and my fitness was at an all time low.

Now I had to call on my entire body to help support the healing I was anticipating for my brain.

What followed was a brand new interest in the mechanics of my mind and body. And discovering how I could, with the help of my Care Team (hospital, home, and rehab), use my needs and desires to achieve results.



This Quick Guide on Fitness will cover:

Hospital Stroke Unit Acute Rehab PT, OT, ST Outpatient Rehab / PT Barriers To Fitness Rewards Of Being Fit

The fitness of mind, body, and spirit continue to be vital components in my Stroke Recovery.

Fitness and exercise are the glue that has held it all together for me through my stages of recovery.

Beginning With A Paradox



You will recall that my Stroke (left side brain) resulted in a right leg and foot I could not move at all. And, a right hand and arm I could barely raise. This meant that I could not turn myself over in bed or hold a cup. Or, even operate my smart phone without considerable effort and concentration.

My Stroke recovery began with an interesting paradox -- you can't get fit unless you have some coordination. You can't become coordinated until your muscles are fit enough to perform their function. It was no surprise then, that my therapies began with a concentration on my cognition, leg/foot and arm/hand in the <u>earliest</u> days of my hospitalization. My stay in Kaiser Roseville 2 South was marked with visits by my Speech (cognitive), Occupational (activities of daily living) and Physical Therapists.

Each of my therapists were quick to point out that after my Stroke, my mind was rebooting. It would reboot as well as it could at that point in time. This rebooting would initiate a phase of reeducating the surviving brain cells that set signals to my nerves and muscles. This reeducation proceeded with remarkable speed in the early days of my recovery in my beloved "2 South".

Cognitive therapies were supported by cognitive "pop quizzes" by my hospital tea to gauge the level of my cognitive abilities each day, watching for signs of weakness in my abilities to perform their mind binders. By the day before my transfer to Vallejo, we all joked because I had not only memorized the answers, I could also state the question before the page was flipped!

However, we were always more serious when it came to my Occupational and Physical Therapies.

Regaining Coordination and Control

On the first day of my hospital stay, I could only raise my right arm (stroke arm) and hand. I could not however, touch the tip of my nose with my right index finger. This was a test I would perform a hundred times during my first week in the hospital. I usually hit my ear. I was that far off. On the second day I could hold a pencil, but not write or even print my name. By the third day I could print my full name.



The earliest attempt to remedy my hand weakness and coordination was a simple exercise with a set of smooth dimpled glass beads (concave on one side, and convex on the other). These exercises were profound examples of what I could do to increase my performance if I was willing to perform the many, many repetitions required of each exercise. By the end of the first week I had mastered the glass beads, and I could almost always hit my nose with my finger.

Visualizing The Task



To accomplish developments in my fitness I realized that for me to be successful I had to be able to

visualize a need (buttoning my shirt)

create a desire to fulfill that need (get dressed)

If in my visualization, I recognized that I really didn't need or want to accomplish something, I set it aside and moved on to another challenge. This kept my frustration levels lower. I could always go back. Keep in mind that all though that first week, I was being closely observed for the traits known to make a patient potentially more successful in Kaiser's Acute Rehab Center (KFRC) in Vallejo, CA. By now you should know the story of my advancement to Vallejo.

So after arriving at Vallejo, I realized that their goal was to give me the ability to get out of bed to toilet, dress, and get myself to therapies. And be able to walk out of the hospital (with a walker) on my own on the day of discharge.

To accomplish this,my Therapy Team and I worked on building my strength and coordination. At the end of two weeks I was able to leave the hospital with full confidence in my ability to return home, walk to my front door (with a walker), stand or sit at my kitchen counter (assisted), and set about building up my fitness levels enough to begin the reconditioning of my mind and body.

It Started In Bed

It should be remembered that my own attempts at regaining fitness began in my bed. I could not stand on my own and my caregiver team were not yet in synk with my reconditioning plan. So, I was prone, and in my PJs. But I was very eager to "get something going"!

I started with an assessment of what I could do and not do laying in bed.

I could:

Sit Up (all be it with some effort). Move my left leg. Use both arms. Grip with my hands.

I could not:

Turn Over In Bed.
Stand without Assistance.
Walk without Assistance.



So these were to be the very basic abilities with which I began my Personal Fitness Program. Movement, even a little movement felt good and was very encouraging. Unlike my hospital beds, at home, I now had the complete freedom of a queen-size mattress. Plus, (and this became very important) I could now sit on the edge of my bed. Sitting on the edge of the bed gave me all kinds of new leverage in moving my abs, and arms. This new freedom was an inspiration to at least try of all that I now realized I could accomplish in my new bed/gym. It was to be several months before I could get down on the floor (and then, get back up).

FITNESS



BEGINNING OF MY PHYSICAL FITNESS - IN MY HOSPITAL BED

Body Part	Situation	Remedy	Benefit
Fingers, (R, Stroke)	Almost zero coordination.	Stress ball, and finger calisthenics.	Could button my shirt by end of week one.
Hand, (R, Stroke)	Unsteady without support.	Endless practice trying to hold still a pointed finger.	Helped to support and move my body. Grip without dropping things.
Arm, (R, Stroke)	Weak support of hand. Pointing impossible without my arm shaking wildly	Isotonic and Isometric exercises with surgical tube.	Able to assist in lifting my Stroke leg.
Leg, (R, Stroke)	No movement without assistance.	Bend at knee and pull my leg up using leg muscles.	Helped to be able to turn over in bed.
Foot, (R, Stroke)	Could not even move my toes.	Pushing toes against foot of hospital bed. (Isometric)	Exercise mental com- mands to foot, through my Stroke leg.
Abdominal Muscles	Very weak as a result of serious deconditioning.	Hundreds of ab contractions laying down.	Strong enough to sit myself up in bed

REMEDY RECAP

"Stress" Ball - Palm sized Sand filled ball I could squeeze and knead with my fingers.

Surgical Tubing - A 2 foot length of lightweight "rubber" tubing.

Isotonic Exercise - Movement of arm through its full range of motion - bend/straighten at the elbow.

Isometric Exercise - Static movement of muscles without visible movement in the joint.

Note: Any exercise of my RIGHT side, was duplicated on my LEFT side in repetition, and movement.

Combining Home With Rehab

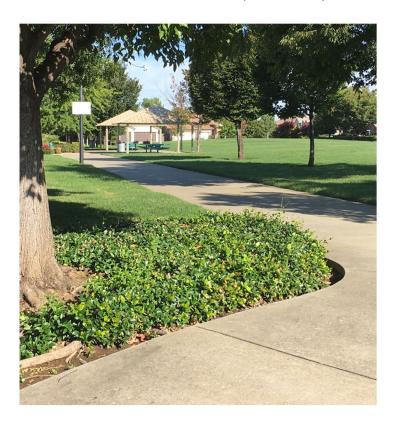


In Acute Rehab the goal was to get me standing (with assistance), take a minimum of 25 steps with my walker, and perform my basic activities of daily living (ADLs). I was home from the hospital just a few weeks when I was introduced to my local *Kaiser Out Patient Physical Therapist*. Michael was to be my new PT coach and mentor. I say coach because Michael would show me the plays, practice once or twice with him, and then send me home with specific assignments to improve my physical strength and coordination between therapy session. He made clear, his expectations on my return.

At first Michael gave me a set of exercises I could perform on my bed. These were a combination of stretches and muscle exercises. In my second session with Michael he asked me "what do you want to do?" I answered ... "WALK!" He said, "then you have to WALK!" He then challenged me to my first really big recovery goal. "When you come to your next session, I want you to walk, with your walker - from the garage to my office. That is about 500 steps."

At that point in my recovery, his challenge seemed more like 500 miles. It was not easy. But, two weeks later, I did it on my next visit to see Michael. And, I was never "wheeled" anywhere again!

Two things made that monumental challenge a success. First, a devotion to the exercises Michael had given me. And then, daily practices with my walker (on days when I had the energy). First to the bathroom. Then to the kitchen. Then, down the driveway to in front of my house. And finally, to the local park where we had measured 500 steps into the park, and back to the car.



500 STEPS

My first REALLY BIG challenge in recovery.

We call it "Lulu Park" named for our little dog.

From the curb to the pavilion, and back, was 500 steps.

Over the next couple of months, I would walk this path hundreds of times, with my walker until I could do so with just a cane.

Today, I walk it with Lulu, needing NO aids at all!

Thanks Michael!

Dialing In My Fitness

Michael is good. I mean really good. He knew almost immediately that I would respond to the challenges he dialed into my recovery. He was confident that I would be faithful to the set of exercises he had prescribed, and use them to achieve my number one goal . . . WALK!



Unfortunately, fitness is the easiest recovery component that can be shrugged off. You don't need to be fit just to get to the next day in your life, Rather, fitness is a long term commitment to a set of objectives, a set routine, and a schedule to perform those routines. Not knowing what my objectives were proved to be my first barrier to becoming fit.

FITNESS OBJECTIVES

Even the hospital was up set up so that I decide what, when, and how I was going to get fit again after my Stroke. This included:

WHAT: Which parts of my body did I judge to be in need of improved fitness?

AT FIRST Being in a hospital bed (later my own) I had limited opportunities to

perform cardio. I was limited to hands, arms and legs in a prone position.

LATER Once I could be moved regularly to a wheelchair, I had my first opportunity

to raise my heart rate, while giving my hands and arms a much needed workout. I insisted on wheeling myself, whenever possible, to the bathroom

and to my therapies, all of which were on the other side of the hospital.

LATER STILL Once I could stand next to my bed, at home, and shuffle along with my

> "grannie" walker, I could then concentrate on regaining and maintaining strength and coordination in my feet and legs. Even short travels with my

walker raised my heart rate and increased my breathing.

WHEN: When was I going to perform my exercises?

AT FIRST In the hospital I used whatever was at hand to perform some kind of

muscular exercise. Being that I was bed ridden, I could "exercise" almost

any time I was not eating, sleeping or in a therapy session.

LATER I got my "workout" wheeling myself to and from therapies And, I still had

my little set of isometrics when I was in bed -and- when I still had some

gas left in my tank after therapies.

LATER STILL On my return home, I was now in full command of my fitness schedule.

> I found, that I performed best in the early morning, after my meds and and a light breakfast. On those days, when I had the energy, I could easily get in another set of "bed bound" strength and coordination

exercise.



ENERGY - HOSPITAL and HOME

I can have the will to recover, but if I don't have the energy to engage in building the fitness needed for Stroke Recovery I will have a hard time getting there. The connection between will and energy were at the heart of my efforts to begin, and sustain, a personal fitness program. For me *energy* came from a combination of SLEEP (rest) and NUTRITION (food and water). And, equally as important, was my MOTIVATION to return to a level of fitness. As early as my hospital stay, maintaining these three components was a prime objective.

SOURCES OF ENERGY



Nutrition (Food and Water)

Food, in the right amounts, was fuel for my mind and body. And, with the prescribed limitations (salt and fats) food was crucial. Later, when I began to seriously workout at the gym, food (with a new concentration on protein) would again play an important role in my continuing recover.



Sleep (Rest)

But, the most important element was SLEEP. The constant medical interruptions and distractions from other patients in the ward prevented long periods of deep restful sleep. Later, when my PT, OT and ST began in earnest, I was mindful of every opportunity to nap, or at least fully relax between therapies.



Motivation

I was often attracted to the concept of "doing nothing special" from a fitness standpoint. Heck, I was in a reasonably comfortable bed, I was being waited on hand and foot, I was alive and there were people doing all they could to keep me that way. So why not while away the day with my arms folded and my mind shutting out the fitness challenges and impositions in my recovery. That would never do!



Finding A Place To Exercise

Aside from being motivated to exercise, I had to have a safe, comfortable place to perform my routines. Between my hospital and home I had several "platforms" on which to accomplish my workouts.

Bed



I was confined to my bed for most of my initial weeks of recovery, first in the hospital and then at home. My bed seemed to be the natural place to begin my own set of exercises. It was flat. I could completely stretch out my whole body. And, it afforded me some safety so long as I didn't get too rambunctious. Eventually, as I regained my balance, I could sit comfortably on the side of the bed and begin to stand, strengthening my feet and legs. I, and my caregivers, had confidence in this advancement so long as I had my grannie walker was close by.

Table



The kitchen table was a convenient place to sit and perform the muscle movements and stretching exercises invented for me by Christina, my Occupational Therapist in OT Acute Rehab. I would clear the table and holding a twisted dish towel, I would stretch out onto the table top and slowly stretch from side to side. The main benefit of this routine was the engagement of my core muscles.

Chair



I even invented exercises that I could perform in my wheelchair in the hospital, then my transport chair, and finally my kitchen chair at home. It was a simple transition from sitting on the edge of the bed to being seated on a solid chair. Eventually I gained enough balance to make the transfer either to my wheeled chair or later to my walker and onto a kitchen chair. The kitchen chair was just the right height for me, and gave me the necessary stability to perform even vigorous exercises.



ENERGY

My positive attitude toward fitness began in the hospital and saw me through the first 3 months at home.



The Pinnacle Of My Early Recovery. 6,302 Steps In One Day!



Washing My Truck Was Among The Many Activities On That Day.

CRATERING

The pinnacle of my early recovery came on September 29. Almost exactly 3 months after my Stroke. On that date I had a fantastic day. Many activities, including washing my truck (hanging on for dear life) and a record of over 6k steps. But, the next day - I CRATERED! After I got out of bed, I could hardly will myself to accomplish even the littlest things. The storehouse of energy I had enjoyed since my earliest days in hospital were stolen from me by a new threat to my recovery . . . FATIGUE!

And, I now had as my unwanted companion, an overall tiredness that each day left me dissatisfied in my progress and missing my dedication to making myself fit again. I shared this new challenge with my Rehab Physical Therapist in my next session. After reviewing what had occurred, Michael and I decided that I had probably had done too much, too soon - and my mind and body needed to "ease up on the gas" in my physical activities. I was so intimidated by the specter of these fatigue events that I consciously ignored my fitness routine and ambitions to get more fit.

The barriers to my fitness, presented by **LOW ENERGY** and FATIGUE, were real and stubborn. Even now, a year later, I am regularly challenged in maintaining my **MOTIVATION**. When the low energy and fatigue set in at the beginning of my fourth month, it became the "600 lb gorilla" in the room in every consideration, and in every recovery discussion.

After a couple of months of being parked on this recovery plateau, I knew I had to push myself beyond my tiredness. I had to find renewed inspiration and the drive to move forward . . . and very soon!

Exercise For Fitness



Importance of Stretching

Stiff muscles limit our movement and our Lives. Keeping the muscles, tendons and ligaments flexible and ready for action helps me in my exercising. But more importantly, it keeps me ready for when I have to perform some physical feat. Poor blood circulation can set me up for muscle fatigue, and possible injury. Devotion to stretching routines can stimulate blood flow, add a healthy tempo to my breathing and prepare my muscles for their fitness routines.

Beginning My Warm Ups

From my workouts earlier in life, I recalled how important **STRETCHING** was to proper exercising. This was particularly true in my new circumstances. For me recovery was all about reawakening every part of my body. So I began every exercise session, even the early ones in the hospital with as series of stretches suited for where I was along my journey to recovery.

Taking the time to add stretching to my Warm Up routine ensured that I would benefit from:

- A. Improved my Range of Movement
- **B.** Increased Power for Activities.
- C. Reduced post- exercise Muscle Soreness
- D. Reduced Fatigue
- **E. Improved Posture**
- F. Improved Coordination



The payoff - I ultimately felt more conditioned, had more energy for each workout session, and it helped me to "cool down" at the end, while reducing stress. So if you only did the few Gentle Stretches to follow you have to feel better.

Before I get into actual stretches, here are the **RULES FOR HEALTHY STRETCHING** I followed:

- 1. Make it part of every Warm Up. Put every part of my body in motion for at least a minute.
- 2. Stretch BEFORE and AFTER Exercising. Unwind tight muscles.
- 3. Stretch major Muscles Groups- Head/neck, hands /arms, legs/feet, and torso.
- 4. Stretch ONLY to the POINT of TENSION, It's not a strength exercise, rather a gentle engagement.
- 5. Stretch SLOWLY and GENTLE. Make stretches smooth, without jerking.
- 6. CONTROL BREATHING through the full stretch. In with out, out with return.

For more on the importance of Stretching and why SAFETY in stretching is important check out:

https://www.mayoclinic.org/healthy-lifestyle/fitness/in-depth/stretching/art-20047931

Bed Exercises



Simple Routines At First

I could do a few arm exercises in my wheelchair. And, in the hospital I could get my heart rate up getting myself to and from therapies. But really, for the first few months the bed (hospital or home) was the most comfortable place to exercise. It was soft and secure, with enough room to stretch out, especially when I got home my queen size bed. On the bed I was able to perform a series of low impact exercises that I could focus on:

Muscle Tone
Coordination
Deep Breathing
Increased Heart Rate

This was also my way of attempting to send signals to individual parts of my body to encourage their reception and a measurable response from . . .

Abdominal Muscles!

These movements went beyond the mere stretches I had already performed in my warm up. The exercises I invented would concentrate on muscle tone and coordination. Strength exercises would come later when I could safely sit up (and later stand, assisted) on the edge of my bed.

Fingers

Actually my exercising started in the hospital when I was given a squishy ball to help get coordination back in my stroke hand. (Everyone there were surprised by the strength of my grip, even as I could not hit my nose with my finger.) Looking back, it is remarkable just how valuable 10 fingers can be in nearly every thing I would do for the next several months. At home I added a 7 inch inflatable Pilates® ball to not only my finger workouts, but many more bed bound exercises.



Hands

Again, in the hospital, among the first body parts for me to exercise were the ISOMETRIC push and pull of my hands. The coordination of my stroke hand and arm had come back strong early in my recovery. Still, as I expanded my bed exercises I was reminded how important a set of strong hands would be to a full set of exercise routines, especially as they were eventually to handle and hold a growing list of exercise equipment and paraphernalia.

CAREGIVING



Finding My Fitness Together

Without efforts to establish a pattern of exercises, and a focus on increased fitness, my deconditioning would have continued unabated. Falling into a spiral of deconditioning would have doomed me to life in a wheelchair. And, it would have permanently established that I could not exist, even for a day, without the hourly attentions of my Caregiver. This recognition was ample encouragement for us all.

In the earliest stages of my home exercise experience, my Caregivers had to fill the role of:

Coach and Trainer

Their coaching was very helpful in keeping me interested and engaged in my DAILY exercise routines. Their participation was more concentrated in the early stages because my lack of strength and balance were very pronounced. I could barely move my Stroke leg. And, my Stroke arm was still only marginally stronger and more coordinated. I needed someone to set up the location for my exercises, and review the selected exercises. Then they would give me a trial for each of the exercises, and judge the quality and correctness of my execution.



Place and Time

Two of the most important parts of successful exercise were 1) a place to perform them, and 2) a schedule that will accommodate the full completion of my daily schedule, and still be integrated into the schedule of my Caregiver(s). This schedule also has to include ample time for me to rest and recover for the next day's session.

Defining The Task

My Caregivers had to know all about each of my exercises, and helped me to design my at-home routines, aided by the instructions given us by PT, Michael. Together with my Caregivers, we were careful to record my progress (photos and/or reports) for our evaluation and reporting at PT sessions.

Celebrate The Little Victories

In the early weeks of my recovery, victories in my "exercise program" were definitely celebrated. However small they might have been, I took great delight in sharing the attainment of my goals with my wife, son, and sisters nearly every day. Sharing this way kept them alert to my progress and any deviation I might make to the plan we had agreed upon.

Page 10

Bed Exercises



Simple Routines At First

Neck and Back

For my neck and back, I engaged my abdominals when I moved my head to the left, then the right until I could feel my abdominal core muscles stretch out. I repeated this with two sets of 10 on each side, at least twice each day.



Hands

The fitness of my fingers and hands were early targets for my exercise efforts. On the day I was admitted to the hospital I could not write my name, brush my hair or teeth, or even button my shirt with my stroke (right) hand. This would not do. I had too much pride and desire to let that be my future. So I began by exercising my hands and fingers on everything within my reach. Opening and closing BOTH hands. Pushing and pulling my hands together (isometric). Grabbing anything close, including the bed clothes, bed rail. I worked my hands all day long until they said "rest". Then I worked them some more. What I was discovering was a principle I was to pursue everyday for the next few months. By moving my hands and fingers my brain, damaged as it may have been, was sending signals to my muscles. It took hundreds of these messages, to do the simplest of things. There was so much activity between my brain and my fingers and hands that by day two, I could scribble a facsimile of my name.

Repeating this every day resulted in a dramatic improvement in the PRINTING of my name, combing my hair, brushing my teeth and buttoning my shirt. I had done the work and laid the roadbed for the path to more extensive exercises in my recovery.

Arms

Exercising my arms took on a greater meaning when I transferred to Acute Rehabilitation. In Vallejo, I needed arm strength to assist in rolling myself over in bed. Then I needed them to help myself sit up on the edge of the bed and help in my transfer to my wheelchair (for meals, transport to therapies, and exploring the hospital in my free time), and finally to perform my therapies with the grannie walker. I used many of my hand exercises with more emphasis on arm engagement.

Bed Exercises



Simple Routines At First



Legs

It should be remembered that through most of my Acute Rehab I had minimum use of my legs, especially my stroke (right) leg. Even my "healthy" left leg was quickly deconditioning from its pre-stroke levels. As a result, most of my leg exercises were relegated to the rehab gym in the hospital. But, after I returned home, heavy emphasis was put on getting my legs fit and in shape to walk more and more in my outpatient rehab. My bed at home, being queen size, gave me lots of room to raise, turn, and bend my legs in rhythms resembling a full on set of exercises designed my me and Michael to develop strength and coordination - first to aid me in standing, and then in strides behind my grannie walker.

Feet

Even after two weeks in Acute Rehab, I could not yet wiggle the toes on my stroke (right) foot. I could not bend my foot back toward my knee. I spent many weeks of concentrated effort just to get my toes to respond to messages from my brain. Seems like a small part of recovery I know. But, believe me, witnessing the gradual improvement in just my toes was huge. Having control of my feet and toes was necessary to regain my balance, fluidness in my walking stride, and helped in overall body movement.

Abdominals

The set of abdominal muscles that make up my CORE were, from my earliest hospitalization, of paramount importance in my bed routines. Again, I had allowed these important muscles to become very deconditioned prior to my Stroke. Now I was going to need them more than ever. They would prove vital in nearly all of my body movements going forward. A strong set of abdominal core muscles were necessary to move my now heavy legs, pick up my feet, sit up, transfer, stand and wheel myself, or just walk a few steps every day.



Got My Juices Going



At home, laying in my bed knowing I had to get my fitness routine going, I was stuck for some real motivation. Something that would get my juices flowing. My inspiration was music. It instantly made me feel up; and it offered me a beat. So, I opened my **YouTube** app and dialed up these tunes that would inspire me to move.



TOTO - AFRICA KM Music

To get me started I played TOTO - AFRICA. With gentle beat of the popular tune, my body came alive and I couldn't help but start tapping my good foot. This was to be the opening tune in my daily "workout collection" of music. Over its 5 min of gentle sounds I would begin to slowly stretch my entire body in preparation to begin my exercises.



Elvis Remix - Latest Flame - Shuffle Dance

Next I would punch up my old friend "The King". With this new shuffle beat I would begin working my arms, then my good leg to a rhythmical beat. The beginnings of a real workout.



Step Back In Time - Dance Mashup

Later I wanted to take it to the next level. I needed a more robust beat that would keep me going for a full 8 or 9 minutes.



All Cardio - Pop Rhythms For A Real Workout

On those days when I wanted to really get my heart pumping, I would stand next to my bed, holding my grannie walker and jiggle and soft step to a thumping 132 beats per minute.

Selecting tunes and rhythms that you like can help you find and maintain your dedication to the earliest rehab exercises.

These dance numbers became old and dear friends as my recovery progressed. They inspired me nearly every day to instill in my mind and body the idea that I could and would get better. They helped me to move from laying on my back when I could do little more than swing my arms; to sitting on the edge of my bed bouncing up to a standing position. And later they got BOTH of my feet moving with strength and coordination that grew more powerful and deliberate . . . every day!