

1. The pelvic floor is fascinating and humbling.
2. There is a lot more to the pelvic floor than just the pelvic floor.
3. Control of the bladder occurs concurrently and coincidentally with the ability to begin to walk with children.
4. Transverse plane motion is the primary motion that turns on the pelvic floor eccentrically.
5. Pelvic floor training has to be done in a normal biomechanical physiological way.
6. Key question . . . Who turned the switch off in the pelvic floor?
7. The traditional program of evaluating and treating pelvic floor dysfunction just doesn't "feel right".
8. We should use a functional strategy to treat pelvic floor dysfunction.
9. Tri-plane loading and unloading of the feet turns on proprioceptively and stimulates the pelvic floor.
10. Based on what is wrong, what is causing the pelvic floor to become dysfunctional, we develop a specific and properly tweaked individualized strategy for each patient for their comprehensive rehabilitation.
11. We wake up the pelvic floor through properly tweaked **Chain Reaction** exercises.
12. Our goal is to facilitate a transformation of the pelvic floor, to make us better and to maintain or develop subconscious pelvic floor control.
13. Traditional pelvic floor exercises do not carry over to function.
14. Traditional pelvic floor exercises do not treat the cause.



## FUNCTIONAL DESIGN SYSTEMS

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# v3.3 THE PELVIC FLOOR

## The Functional Approach

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### OBJECTIVES FOR THE PELVIC FLOOR FUNCTIONAL GUIDE

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To assimilate up-to-date information and knowledge about pelvic floor techniques. To learn how to apply effective functional pelvic floor techniques when testing and training.

To understand and appreciate the tri-plane **Chain Reaction** principles as they apply to the pelvic floor.

### HOW TO USE THIS FUNCTIONAL GUIDE

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This *functional guide* can be used as a convenient summary of the program's contents to take with you after viewing. You can also use this guide as a notebook; space has been provided so that you can make notes on relevant tracts as you watch them.



**FUNCTIONAL**  
Video Digest Series

## 3D Shuffle Matrix

- Left lateral shuffle
- Left lateral shuffle with forward arm swing
- Right lateral shuffle
- Right lateral shuffle with forward arm swing
- Anterior shuffle
- Anterior shuffle with forward arm swing
- Posterior shuffle
- Posterior shuffle with forward arm swing
- Right forward rotational shuffle
- Right forward rotation shuffle with forward arm swing
- Left forward rotational shuffle
- Left forward rotational shuffle with forward arm swing
- Right backward rotational shuffle
- Right backward rotational shuffle with forward arm swing
- Left backward rotational shuffle
- Left backward rotational shuffle with forward arm swing

“What is crazy Gary up to now?”

Prevention and Performance Program for my pelvic floor

3D **Chain Reaction** for eccentric and concentric contraction throughout the entire body for the pelvic floor

Description of lunge, step, shuffle (gallop)

Description of 3D shuffle

Other Tweaks

- with backward arm swing
- with bilateral arm floor touch



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STRATEGY 1

Strategically realizing our previous misconceptions of function throughout the body

STRATEGY 2

Strategically appreciating the normal development of the pelvic floor

STRATEGY 3

Strategically understanding the comprehensive **Chain Reaction** of the pelvic floor

STRATEGY 4

Strategically comparing the traditional strategy of treatment of the pelvic floor with a functional model

STRATEGY 5

Strategically analyzing for specific causes and compensations that lead to pelvic floor dysfunction

STRATEGY 6

Strategically taking advantage of all physiological and natural drivers to facilitate tri-plane loading of the pelvic floor

STRATEGY 7

Strategically creating effective training and conditioning programs for performance and prevention with regard to the pelvic floor

STRATEGY 8

Strategically transforming understanding of the function of the pelvic floor in order to enhance all forms of function

STRATEGY 9

Strategically having the same blend functionally to enhance our functional opportunities

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The pelvic floor is fascinating and humbling.

The history of understanding function . . . the foot, the knee, the pelvis, the spine, the scapula, the shoulder, the elbow, the hand.

Looking at the function of the pelvic floor . . . functionally.

The wisdom of taking advantage of our previous mistakes.

Pelvic floor dysfunction is prevalent.

Try to take advantage of the wisdom of the body and build upon that wisdom.

Functionally what is going on?

- The levator ani muscles . . . powerful
- Coccygeus muscles
- Superficial perineus muscles
- Piriformis muscles
- Obturator muscles
- Gemelus
- Gluteal muscles

What do all these muscles do? They get eccentrically loaded in order that they can concentrically contract to do what they are designed to do.

Part of the problem is the function of the pelvic floor

Description of the “is it coincidental?” **Chain Reaction**

The interrelation of the primary pelvic floor muscles with the rest of the body

There is a lot more to the pelvic floor than just the pelvic floor

Control of the bladder occurs concurrently and coincidentally with the ability to begin to walk with children

Loading occurs with the three dimensional “wobble” of the pelvis and the trunk integrating with gravity and ground reaction forces . . . it happens subconsciously

As we age we get less effective against gravity and ground reaction force and we initially lose significant transverse plane motion especially in the thoracic spine and the hips.



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Transverse plane motion is the primary motion that turns on the pelvic floor eccentrically.

Therefore, a decrease of the eccentric stimulation creates a decreased ability to concentrically contract and to control the bladder.

With bed rest there is a significant increase in urinary incontinence.

Pelvic floor training has to be done in a normal biomechanical physiological way.

Discussion of the relationship of the abdominal muscles with the pelvic floor.

Laughing, coughing and sneezing with urinary incontinence.

Training the abdominal muscles subconsciously that they eccentrically load in order that they eccentrically feed the pelvic floor.

Turn the abdominals on especially in the transverse plane through motion of the thoracic spine and the hips . . . this also effectively loads the pelvic floor.

The ability to load through the hips predominantly in the sagittal plane stimulating the pelvic floor

Stimulating abdominals, hip flexors, adductors, hip rotators creating stimulation of the pelvic floor

The description of the function of the adductors in the sagittal and transverse planes

Key question . . . Who turned the switch off in the pelvic floor?

Understanding the **Chain Reaction** pelvic floor dysfunction.

Inhibiting the proprioceptive stimulus that the pelvic floor needs to prevent urinary incontinence

An opportunity for us to individually analyze and effectively treat the pelvic floor dysfunction

The pelvic floor is synergistic with the rest of the body with respect to all forms of function

Looking at the cause of the compensations that lead to pelvic floor dysfunction

Taking advantage of our strategies of function and our understanding of the biomechanics of the body in order to effectively treat pelvic floor dysfunction

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Introduction of Toni Garrison, PT.

We are going to learn a lot together and it will be based on common sense function

The traditional strategy of pelvic floor dysfunction

- Thorough history, especially medications
- EMG assessment and/or manual assessment of the pelvic floor
- Adductors versus obturators
- Theraband for the obturators
- Ball between legs for the adductors
- Standing plie' for the adductors

Home exercise program

- Relaxed awareness of the pelvic floor
- Conscious concentric contraction of the pelvic floor (Kegal exercises)
- Theraband obturators and/or ball between the legs adductors

Looking at the individualization of the program

Discussion of the bladder diary

Other questions that we may need to ask

The traditional program just doesn't "feel right"

In the good old days our patella femoral dysfunction programs didn't "feel right"

- VMO controlling the patella femoral joint
- Biofeedback of the VMO with knee extension

It just didn't make sense, especially when we understand the true function of the patella femoral joint and the VMO itself.

The VMO decelerates eccentrically knee flexion, abduction and internal rotation

To treat the knee effectively we need to know the entire **Chain Reaction** . . . we need to know who turned the VMO off in order to get it to contribute to overall knee success

We need to put our ear next to the butt

Just telling the VMO to contract, just telling the transverse abdominus to contract, just telling the pelvic floor to contract . . . doesn't effectively treat the dysfunction, it definitely does not treat the cause, and doesn't answer the question: "Who turned it off?"



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As kids we did three dimensional plies without realizing it

Diaphragmatic breathing

- With inhale my belly should lengthen
- With inhale air goes into the lungs and the diaphragm compresses the abdominal contents and the bladder to load the pelvic floor eccentrically (the dual hammock effect)
- When the abdomen concentrically contracts the pelvic floor needs to concentrically contract as well reflexively

Description of external rotation of hips caused by the ability to first of all internally rotate the hips

How many ways can I turn on the abdominal muscles with various body drivers

“I wonder if we should use a functional strategy to treat pelvic floor dysfunction?”

On one hand it will be easier . . . on the other hand it will be much more complex based on our need to individualize each treatment program based on the assessment of causes of the compensations that lead to the pelvic floor dysfunction

There is a need to do a comprehensive biomechanical and functional assessment on each patient

Is there really a need to do biofeedback?

Mobilization of the hips in all three planes to turn on the pelvic floor

There is a direct fascial and neurological link between the pelvic floor and the feet

S2, S3, S4 innervate the pelvic floor as well as the feet

The **Chain Reaction** . . . sacral tuberos ligament - hamstrings - posterior tib and peroneals - intrinsic muscles of the feet

Tri-plane loading and unloading of the feet that turns on proprioceptively and stimulates the pelvic floor . . . it is gravity, ground reaction force, momentum, other muscles forces, and body drivers that facilitate this

Is it a possibility that someone with pelvic floor dysfunction may in fact need the driver of foot orthosis? . . . it is dependent upon our comprehensive evaluation

Everything goes through the pelvic floor

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Based on what is wrong, what is causing the pelvic floor to become dysfunctional, we develop a specific and properly tweaked individualized strategy for each patient for their comprehensive rehabilitation

All the “what we might need to dos”

Neurological, skeletal, myofascial **Chain Reaction** from the head to the toes

Right stride stance - discussion of the function of the adductors in the transverse and sagittal planes

Tweak in the frontal plane with the wider base

Tweak in the transverse plane by toeing out bilaterally

Shoulder to overhead 3D Lifting Matrix with light weight dumbbells

Posterior reach tweak with the 3D Lifting Matrix shoulder to overhead to facilitate more abdominal loading

Toe in transverse plane tweak

Vertical displacement to facilitate gravitational effects to get the “bulbous” effect

Making diaphragmatic breathing more functional

Taking a preventative approach with pregnancy

The timing of the exercise program, relative to a full versus empty bladder, and relative to how much fluid is in the bladder



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The tweak of the position of sitting with the use of inflatable ball

The “bulbulous” effect of the bounce of the ball

The 3D Lunge Matrix loading and exploding the pelvic floor

The 3D Lunge Matrix with various reaches to facilitate a bottom up and top down load to the entire chain and crossing through the pelvic floor

Exercising in functional concert with an emphasis on what is individually needed

We need to look at our patients more functionally and to treat them more functionally and then follow up with functional documentation to determine the efficacy of our rehabilitation

Our program follows function:

- Its subconscious versus conscious
- Its eccentric before concentric
- Its three dimensional, from the top down and from the ground up
- Its integrated isolation
- Its isolated integration
- Its functional and its fun

Who turned the lights off?

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## INTRODUCTION OF SCOTT FAUST

The need to know more about the pelvic floor

What we currently know about the pelvic floor

- It is like all other skeletal muscles
- It needs to be loaded proprioceptively before being able to explode
- It gets loaded and transforms in all three planes
- Its primary plane of function is the transverse plane
- It reacts to vertical loading

Waking up the pelvic floor through **Chain Reaction** exercises

The pelvic floor responds to quick reaction, rotation and balancing

- 3D Lunge Matrix done quickly
- 3D Lunge Matrix with a foot drag back
- 3D Lunge Matrix with a foot double dragged
- 3D Slide Lunge Matrix with stockings on a slippery floor

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### 3D Lunge Jump Matrix

- Anterior lunge jumps with hand drivers knee to overhead
- Lateral lunge jumps with hand drivers knee to overhead
- Rotational lunge jumps with hand drivers knee to overhead
  
- Tweaks with 2 lb. dumbbells
- Tweaks with toed-in position
- Tweaks with overhead reach

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Transforming and understanding the pelvic floor with appropriate range drills to enhance the desired functional activity in addition to enhancing the pelvic floor itself

- Exaggerated wide base stance, toed in, with bounce with chock up grip
- Exaggerated narrow base stance, toed in, with bounce with chock up grip
- Right stride stance, toed in, with bounce with chock up grip
- Left stride stance, toed in, with bounce with chock up grip
- Super triple tweak
- Right stride stance, wide based, toed in, with bounce with chock up grip
- Left stride stance, wide based, toed in, with bounce with chock up grip

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The last thing you want to do is to putt when you want to pee, or worse yet, is to pee when you want to putt.

The transformation of the pelvic floor, to make us better and to maintain or develop subconscious pelvic floor control

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RESEARCH ROUNDTABLE WITH DR. DAVID TIBERIO

Kuo Ch. Videourodynamic results of stress urinary incontinence patients after pelvic floor muscle training. Journal of Formosa Medical Association, 2003 102(1): 23-29.

Bo K, Talseth T. Long-term effect of pelvic floor muscle exercises 5 years after cessation of organized training. Obstetrics and Gynecology, 1996, 87(2): 261-265.

Singing the same old song with respect to our approach to function

We first of all need to know the function of that which we are treating and training and conditioning

There is a significant amount of research available

Mall phobia . . . “our patients leave better, but when we see them months or years later at the mall they have the primary symptom back, many times worse”

Looking five years later . . . with pelvic dysfunction “almost all of the research subjects were worse”

Traditional pelvic floor exercises do not carry over to function

Traditional pelvic floor exercises are really boring (even though 70% kept them up)

Traditional pelvic floor exercises do not treat the cause

Even though the research subjects were not better, they chose not to return for additional treatment



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It doesn't "feel right" to our patients . . . and it doesn't "feel right" to us

We have taken four relatively nonfunctional exercises and now with the use of understanding function, have transformed the understanding into literally four million functional exercises for pelvic floor dysfunction

We must go after the cause first

"Not only is my pelvic floor getting better, but I am overall functioning better"

The strategy of success leading us to the potential causes . . . understanding that the observation of the exercises leads us to a better analysis understanding

Someone has to tell the pelvic floor to turn on

The hammock of the pelvic floor utilizing gravity as a physiological and proprioceptive stimulus

Your greatest friend is truly your greatest competitor

The gift of competitive friendship

Strategically having the same blend functionally

Intransformatize . . . becoming the pelvic floor

The potential of having a functional strategy . . . and the potential good it will do for literally millions of individuals

Looking for the cause to get the pelvic floor neurologically and proprioceptively turned back on and then begin building upon success through tweakology

A special thanks to Dr. David Tiberio and Toni Garrison, PT.

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