

# BREATHING MADE SIMPLE

*A Holistic and  
Natural Approach to  
Extraordinary Respiration*

PETER C. JACOBSON  
FOUNDER & EXECUTIVE DIRECTOR  
TOTAL VOCAL FREEDOM

# TOTAL VOCAL FREEDOM

Dear Singer,

Welcome to 'Breathing Made Simple!'

In this eBook you will learn how to breathe as nature intended you to breathe—with ease, freedom and efficiency.

With this revised and updated version you'll find some brand new information and resources to help support you in your quest for free and natural breathing.

Here's an overview of the contents of this eBook:

- 1. First Steps in Natural Breathing**
- 2. Your Natural Human Design**
- 3. Your Breathing Bones**
- 4. Your Breathing Muscles and Organs**
- 5. Your Breath Support**
- 6. Your Breathing Plan**
- 7. Bonus #1 – 12 Tips for Better Breathing**
- 8. Bonus #2: The Top 5 Breathing Myths for Singer...Debunked**
- 9. Bonus #3 – Quiz: Test Your Breathing Knowledge**

Cheers,

Peter Jacobson

Founder & Executive Director

Total Vocal Freedom for Singers

PS – If you have any questions or feedback about this material, I would love to hear from you. You can email me here: [peter@totalvocalfreedom.com](mailto:peter@totalvocalfreedom.com).

*Copyright © 2017 Total Vocal Freedom  
All Rights Reserved*

# Chapter 1: First Steps in Natural Breathing

Imagine this scenario:

A young singer named Hannah is very confused about breathing (though she is a fictional person, she represents a very common experience among singers).

Throughout her training as a singer she has heard the following advice:

1. Breathe deeply as if you are filling up a beach ball in your belly
2. Support the sound with your diaphragm
3. Tank up with lots of air so you don't run out
4. Don't move your shoulders or collarbone

But over time, Hannah is noticing lots of tension in her singing, especially her high notes. Additionally, she is having a hard time getting through long phrases.

She reasons that she can improve her breathing by doing isolated breathing exercises and strengthening her core muscles.

But after a few months of that she finds she still hasn't found an easeful way of breathing that allows her to sing long sustained phrases with a beautiful sound.

## Can You Relate?

Having grown up singing in choirs and taking voice lessons, I heard much of the same advice about breathing as Hannah.

This made me believe I was doing something wrong and that breathing was such a complex subject that I'd never "get" it.

Yet, I now know this to be true: *When you cooperate with your natural design, breathing is simple!*

It is not complicated nor does it require fancy techniques or exercises.

Yet somehow when it comes to singing, singers complicate one of the most natural and simple things we do as human beings.

So if you are confused about breathing or frustrated by your inability to sustain long phrases then read on; you're in exactly the right place.

## **The Cause of Breathing Problems**

The majority of breathing problems are caused by:

- 1.) *Conceiving of breathing anatomy incorrectly (by taking 'metaphors' literally)*
- 2.) *Interfering with the natural human design*
- 3.) *Not having a constructive, conscious breathing plan*

Therefore, in this eBook you will:

- 1.) *Update, if necessary, your current ideas of breathing anatomy*
- 2.) *Learn how to cooperate with your 'natural human design'*
- 3.) *Learn how to use the Alexander Technique in your singing technique to create a reliable 'breathing plan' that you can count on every time you sing*

## **Total Vocal Freedom Basics**

The Total Vocal Freedom curriculum (based on principles of the Alexander Technique) can help any singer who wants to sing with maximum freedom and ease.

Everything you learn in this book is built on 2 key foundational ideas:

**1.) You are psychophysically WHOLE, a complete integrated system not a collection of parts.**

**2.) YOU, all of you, are your instrument.**

# Chapter 2: Your Natural Human Design

*“Music education belongs on a somatic foundation because musicians move for a living, like dancers and athletes, except that musicians’ movement is even more refined, precise and rapid.”*

–Barbara Conable

Since YOU are the instrument that creates the art, it’s essential that you understand how YOU work!

## **The Design of Your Instrument**

Alexander Teacher Cathy Madden writes, “Psychophysical unity is real, so what we think about how we are put together manifests in how we move.”

So how are you put together?

The basic organizing principle of your design is this:

***You are built around an upright support system—a long, curvy spine with a head on top—which is designed to lengthen upwards against gravity.***

Did you know that you were born with a superpower: anti-gravity!

How else could you remain upright despite the power of gravitational pull?

Understanding how this upright support system works is essential for free singing because it is the central structure around which ALL parts of your sound-making mechanism are organized.

That includes the throat, which is suspended from the skull, and the respiratory system, which depends on this head-spine system for its flexibility and power.

Do this now – point to where you imagine your head is resting on your spine.

Most people point to somewhere along their neck (at the level of their chin) or at the bump on the back of their head (fun fact: the technical term for that is your occipital protuberance).

The truth is this:

The head balances on top of the spine at the atlanto-occipital or “nodding” joint, which is between your earlobes and behind your soft palette.

Most singers are surprised to learn it’s much higher than they thought!

One of F.M. Alexander’s discoveries was a fundamental law of nature:

***The head-spine relationship determines overall coordination and quality of movement in every activity.***

Therefore the head-spine joint is the most important joint in the whole body!

When you tense between your head and your spine by pulling down and tightening your neck, the quality of what you do, including breathing, is adversely affected.

So because natural breathing depends on your head and spine, let’s explore what a “head” and “spine” actually is.

## **The Head**

A few key points about your head:

1. *Your face is not your head*
2. *Your head is basically everything above your cheekbones (put one hand on the top of your head and one hand at you cheekbones then keep that spacing and bring your hands forward...your head takes up a lot of space!)*
3. *Your jaw is an appendage, and is independent from your skull*
4. *Your head weighs roughly 5 kilos (11 lbs), roughly the weight of a bowling ball or large bag of rice*

5. *You are forward-weighted—the center of gravity in your head is in front of the balance point*

## **The Spine**

The spine consists of 34 vertebrae:

- *seven in the cervical (neck) region*
- *twelve in the thoracic (chest) region*
- *five in lumbar (lower back) region*
- *five in sacral (pelvic) region*
- *five in the coccygeal (tailbone) region*

24 of these vertebrae are movable. They are the most flexible and delicate at the top at the spine and then increase in size and girth down the spine until the sacrum and coccyx, which consist of many fused vertebrae that basically function as one unit.

Three important things to note about the spine:

1. *The weight-bearing part of your spine is the front part of your spine, making it a central structure that is set a couple of inches in from the spinal processes, the stegosaurus-like bumps on your back.*
2. *Your spine has natural curves that give it flexibility and power. Trying to stand up 'straight' actually shortens and weakens our spine and creates undue tension in the whole body.*
3. *A lengthened spine is a happy spine. Use the Alexander Technique to invite yourself to move in such a way that your head can move and your spine can follow. This allows your spine to lengthen naturally, as it is designed.*

**So there it is—your basic natural human design.**

We all have it. And we don't need to add anything to it. When we interfere with it, the quality of our functioning and performance is adversely affected. When we cooperate with it, we function optimally. It's as simple as that!

# Chapter 3: Your Breathing Bones

Let's now look at the key breathing structures that are built around your upright support system.

## **The Thorax & The Ribs**

Because 'imaginary' anatomy always overrides the truth, I advise my students to use the term 'thorax' instead of 'rib cage'. A 'cage' implies rigidity, inflexibility and imprisonment. As you will see, the design of the thorax is nothing of the sort!

The thorax consists of over 80 joints and is extremely malleable, meaning that individual ribs can be bent and withstand considerable torsion. Each rib is also elastic, which is to say that if a rib is forced out of shape, up to a certain point it will always return back to its original position.

The strength of each individual rib comes from its curvy blade-like shape. This shape gives the ribs a suppleness that few other bones in the body possess.

We have 24 ribs (organized in 12 pairs) and they move like move pail handles. In our back, the ribs attach to our 12 thoracic vertebrae. In our front, they connect to the sternum via cartilage.

### **Allowing the ribs to move is essential to free and natural breathing.**

Ted Dimon writes: "When the muscles of the trunk are functioning properly, the ribs are able to move flexibly, but because of tension and postural distortion, they are typically fixed and quite rigid."

## **Arms–Shoulders Structure**

Holding or stiffening the arms–shoulders (I refer to them together because they are part of one structure) is a very common way that singers interfere with natural breathing.

A few important considerations:

1. *The shoulder blades, which are shaped like mini-shields, are free-floating in the back. Allow them to glide along the ribs with each inhale and exhale.*
2. *The only place the arms–shoulders attach to the axial skeleton (spine and ribs) are at the two sternoclavicular joints, which are just below your larynx. Let your arms–shoulders be floaty and free above the ribs for maximum freedom of breath.*
3. *The arms–shoulders play an important role in breathing due to their proximity to the thorax.*

## **Pelvis and Legs**

Your torso goes from the top of your spine (between your earlobes) all the way down to the bottom of your pelvis. Since breathing is an action of the whole torso, the pelvis plays an active role.

As you sit, are you aware of your sitz bones, or ischial tuberosities? They are the bottom of your pelvis. They are sort of shaped like bent elbows. They move ever so slightly during breathing if you let them.

The pelvis is connected to the thoracic structure via the lumbar vertebrae. The five lumbar vertebrae are massive and many respiratory muscles attach to them.

Calais-Germain writes, "Because the pelvis and thoracic cage are linked together through the lumbar vertebrae, they behave interdependently."

Therefore, the pelvis, especially the pelvic floor, can move if allowed to do so.

Another common habit among singers is to grip or hold in the legs. This restricts breathing because the legs are connected to the diaphragm indirectly via the psoas major muscle. If your breathing isn't as free as you know it can be, check in with your legs to see if they are tight.

Since we are whole, it's all connected!

# Chapter 4: Your Breathing Muscles & Organs

The breathing muscles and organs are all organized around the central support system and the breathing bones. Review chapters 2 and 3 if you are still unclear how your skeletal system is put together.

## The Lungs

The lungs are the respiratory organs that allow us to exchange carbon dioxide with oxygen.

Contrary to popular belief:

- the lungs are located just in the upper half of your thorax
- the top of lungs goes just above the 1st rib (which goes behind your collarbone)
- there is more lung tissue in your back than in the front
- the right lung, which consists of three lobes, is slightly bigger than the left lung

The lungs contain over 300 million little sacs called pulmonary alveoli. It is at this micro level where the exchange of oxygen and carbon dioxide occurs.

If you were to unfold the cellular walls of the pulmonary alveoli it would cover an area the size of half a tennis court!

Since the alveoli contain connective tissue that is made of elastic fibers, the lungs are like rubber bands. During inhalation these fibers are stretched and in exhalation their elasticity serves as the main expiratory force.

(Fun fact: the lungs cannot move on their own)

## The Diaphragm

Right below the lungs sits the thoracic diaphragm, which is a large fibrous muscle that separates the thorax from the abdominal cavity.

The diaphragm has a double dome shape and attaches to the inner surface of the thoracic cavity. Hence, the movements of the thoracic structure directly affects the diaphragm and vice versa.

You can think of the diaphragm as the shape of a huge shower cap or jellyfish. It ascends and descends on the horizontal plane. That is to say up and down, not forward and backwards.

This thin, powerful and supple muscle plays a decisive role in every breath we take. Your diaphragm has been working non-stop since your very first breath. Talk about a hard-worker!

Fun fact: the liver and stomach are attached to the diaphragm and exert a slight downward pull on the diaphragm during each inhalation.

### **How the Diaphragm Works**

To understand how the diaphragm works, interlace your fingers in front of you. Now move your elbows out sideways. As you do that, you'll notice the shape of your hands changing and lowering.

In this activity, your hands represent your diaphragm and your arms represent your ribs.

What instigates this motion is a signal from the brain indicating the need for oxygen to either keep the body alive and/or communicate something with the voice (spoken or sung).

As the diaphragm descends it pushes on the internal organs in what Jessica Wolf calls a 'visceral massage.' The abdominal muscles, if not held rigid, will expand slightly to allow for the movement of the internal organs.

"The diaphragm," writes Cornelius Reid, "is without proprioceptive nerve endings, and therefore without sensation. Thus, it is impossible to exercise any

control over diaphragmatic movement except through the reflexive act of breathing.”

Some people argue we can feel our diaphragms.

If we could, then every singer would know exactly where their diaphragm is and my experience in working with lots of singers has proved that to be untrue!

*Since the diaphragm is primarily a muscle of inhalation and we sing on the exhale, our diaphragm does not support the sound.*

### **Assisting Abs**

The function of the abdominal muscles during singing is to assist the action of the ribs and diaphragm. In other words, the abs do not provide direct "support" but instead provide secondary support by helping out the ribs and diaphragm.

Many singers, in trying to 'support' the sound with the diaphragm are actually just tightening and flexing their abdominal muscles.

Reid confirms this point: "Pedagogic procedures initiated with the express intent of pushing the diaphragm 'up' and 'in' mistake diaphragmatic action for abdominal muscular tension."

Many singers are also taught to "fill the beach ball" when breathing, i.e. protrude the abdomen. This metaphor, when taken literally, causes a collapsing force on the whole upright structure for which free breathing relies upon.

The abdominal muscles are designed to function automatically in the context of the total upright pattern. That is to say, they are part of the greater, more global muscular activity and can be trusted to work efficiently when the whole body is coordinated.

# Chapter 5: Your Breath Support

*“Economy in exhalation is the great secret of gaining vocal perfection...”*

–F.M. Alexander, *The Human Voice*

While there are many schools of thought on breathing and support in singing, it is safe to say that all singers and teachers of singers can agree on one thing: the air must be managed differently when singing compared to speaking.

When you sing, you create sound by slowly releasing air on a ‘controlled exhalation.’ This decrease of air flow is coordinated with the closing of the vocal folds, which serve as an inner “air gate.”

Learning how to slowly and consistently release the air is a large part of the singer’s training.

If you release your breath too quickly it will put undue pressure on your vocal folds, which will tense as a result.

If the breath is released too slowly your sound will be weak, ‘unsupported’ and intonation will suffer.

There are many schools of thought how to manage the breath during singing, what most refer to as ‘breath support.’

## **What is Breath Support?**

In keeping with the title of this course, “Breathing Made Simple” I offer a simple idea of breath support:

*Breath support happens naturally when you are consciously coordinated in your entire musculoskeletal system through active cooperation with your natural design.*

In doing so, you create the conditions for elasticity of the torso and freedom of the entire body which allows for a free, sustained controlled exhalation.

Michael McCallion, who based his *Voice Book* in large part on his studies of the Alexander Technique, writes: "Good voice use must come from the coordinated good use of the body as a whole."

The pitfall of breath support is trying to actively "do" support, which typically involves tensing the abs or core muscles.

The fact is the more you try to "do" support, the less support you actually receive because all the excess "doing" creates unnecessary tension and only interferes with the natural working of a system that works perfectly well without your meddling.

That's not to say you do nothing. Singing is a very 'active', even athletic activity. You just learn how to 'do' in the appropriate places.

**You cooperate with the design instead of fight it.**

How? With the Alexander Technique!

Ron McDonald says: "The Alexander Technique, by bringing about natural body support, gives the voice the support it needs and the chance to work freely. It then helps us move into energized activity while avoiding interference that limits it."

# Chapter 6: Your Breathing Plan

Fact: Beautiful singing requires natural, efficient use of the breath.

If you want more freedom in your breathing and singing, here's a plan to help.

## Your Breathing Plan

Building on everything we've learned up to this point, I suggest using the following breathing plan:

1. Identify your constructive desire or wish. We breathe more effectively when we have an intention to express something.

2. Invite yourself to coordinate by thinking about your head moving in an upward direction. Tip: It should be just a thought not a deliberate action.

*For beginners, it is often helpful to toggle between using the Alexander Technique (allowing freedom in the head-spine joint) and 'reverse' Alexander Technique (tensing your neck and tightening in the head-spine joint). 'Reverse' Alexander Technique can illuminate how you might be thwarting your own vocal freedom despite your best intentions to be free.*

3.) Maintain your coordination while consciously choosing to perform a phrase or song. Give yourself the freedom of choice to sing or not sing. Choosing to do another activity at the last second can be liberating!

4.) Allow for a breath by letting every part of you move that wants to move. Play around with starting the breathing process with a controlled exhale (whispered Ah or hiss) and then letting for breath to return effortlessly and reflexively.

5.) Sing! While singing gather information about yourself. Did you interfere with your natural design? Where? Did you tense your head-spine relationship while singing?

6.) If necessary, create a new constructive plan based on what you learned in your first experiments.

As you employ constructive performance plans like this one you will discover that it is the coordinated working of all of YOU using the Alexander Technique that indirectly produces the desire or wish with 'forcing' or 'making.'

As Joyce DiDinato said in a recent masterclass, "We can never make the voice full-sounding, we can only let it be full sounding."

The Alexander Technique is the ultimate tool in learning how to let and allow the natural things to happen in our breathing and singing.

I hope that this course gave you some valuable information and skills in how to breathe as nature intended you to breath—with ease, freedom and efficiency.

# **BONUS #1 – 12 Tips for Better Breathing**

## **1. Breathing Starts With the Exhale**

*"The singer who breathes out according to the laws of nature will have little difficulty in breathing in properly."*

–Husler & Rodd-Marling

## **2. Breathing is a 3-Dimensional Activity**

*"Breathing is a 3-dimensional shape change in the torso."*

–Jessica Wolf

## **3. Let Everything Move That Wants to Move**

*"Life moves. Music moves. Singing moves. Breathing moves."*

–Peter Jacobson

## **4. Invite Total Body Coordination**

*"Our focus really should be on the overall conditions on which breathing depends [our total body coordination]."*

–Ted Dimon

## **5. Smile!**

*"You always move [and breathe] better with a smile."*

–Marjory Barstow

## **6. Be Inspired**

*"The word 'inspiration' has two meanings—being mentally stimulated to do something creative and breathing in."*

–Peter Jacobson

## **7. Have a Clear Intent to Communicate**

*"Breathing is not-yet-heard-thought in the language of music."*

–Thomas Hampson

## **8. Find Your Total Body Balance**

*"Natural breathing requires both support (stability) and movement (mobility). The dynamic interplay of those two factors creates total body balance."*

–Peter Jacobson

## **9. Exhaled Air Goes Up**

*"Exhaled air goes up because the lungs are lower than the mouth."*

–Cathy Madden

## **10. Include Your Nose**

*"Though it's not always possible, breathing through the nose allows the air to be filtered, warmed and moistened, all things the larynx certainly appreciates."*

–Peter Jacobson

## **11. Avoid Gaspings for Air**

*"Overly audible sound during the inhale indicates constriction somewhere in the vocal tract."*

–Peter Jacobson

## **12. You're Better Off Not Thinking of the Air**

*"...the quality of breathing depends not on what we do with the air but on what we do with ourselves."*

–Ted Dimon

## **Bonus #2 – The Top 5 Breathing Myths for Singers... Debunked!**

### ***MYTH #1: Belly breathing is the most effective way to breath for singing***

**Reality:** It is anatomically impossible to breath into your belly! While many teachers offer this instruction as a metaphor to avoid shallow breathing or shoulder raising, students often take it literally which creates a downward pull in the torso and puts unnecessary pressure on the spine and entire vocal mechanism.

**Solution:** Update your breathing with an anatomically-accurate map based on your natural design

### ***MYTH #2: In order to sing, you must deliberately take a breath***

**Reality:** Deliberately 'taking' a breath creates excess tension and rigidity by interfering with the natural elasticity of your torso. You function most efficiently when you 'allow' or 'let' for a breath. Have you ever noticed how, at the end of a phrase, the air rushes back into your lungs naturally without effort? That's because the breathing process starts with an exhale. The inhale will happen without any effort if you let it.

**Solution:** Use a controlled exhale (hiss or whispered 'ah') and when you get to the end of the exhale wait and allow for an inhale but letting the ribs and whole torso release and expand. Sing a phrase of music and instead of 'taking' a breath, start with a controlled exhale and wait for a reflexive, natural inhale.

### ***MYTH #3: The diaphragm and abdominal muscles help 'support' the sound***

**Reality:** We sing on the exhalation and since the diaphragm is a muscle of inspiration, it is physically impossible for the diaphragm to be involved in supporting sound. When we sing, the goal is to release the air at a slow, steady

pace. The abs can only force the air out faster which works directly against that goal. It is the entire torso that helps 'support' the sound.

**Solution:** Think of 'support' as maintaining your upright coordination while slowly releasing the air.

***MYTH #4: Practicing breathing exercises is the best way to improve breathing***

**Reality:** Breathing happens naturally and it is folly to think we can improve on nature. Breathing exercises, especially when done out of context, are, at best, neutral and, more often than not, accentuate harmful habits. Unless habitual patterns of tension and holding are discovered and released, breathing exercises only perpetuate the habits. Improving breathing is almost always a subtractive process not an additive one.

**Solution:** Instead of breathing exercises, do some detective work and find out where you are interfering with the natural working of your breathing design. Common habits are to shorten, pull down, constrict and tighten to breath.

***MYTH #5: Breathing must be done mechanically to achieve consistency in sound***

**Reality:** Breath is emotion. Breath is life. As artists we must have the flexibility and spontaneity to breath in whatever way the music or character requires in that moment. Mechanical breathing leads to mechanical singing and music-making.

**Solution:** Instead of thinking about the air or the breath, think about the desired sound of the music and let for the whole body to be free to produce that sound. Do not force anything to happen directly; it happens indirectly. As Joyce DiDinato said in a recent masterclass, "We can never make the voice full-sounding, we can only let it be full sounding."

## Bonus #3 – Quiz: Test Your Breathing Knowledge

**HINT:** The answers to these questions are all taken from this eBook. Read the entire book first and then test your knowledge!

**1. How many curves does your spine have?**

- A. 4
- B. 7
- C. 1
- D. 0

**2. How many ribs do you have?**

- A. 18
- B. 24
- C. 8
- D. 32

**3. There is more tissue in the front of the lungs than the back.**

- A. True
- B. False

**4. Exhaled air goes:**

- A. Forward
- B. Up
- C. Up and Out
- D. Towards the Ground

**5. Breathing is a \_\_\_\_\_ shape change in the torso.**

- A. Radical
- B. Dynamic
- C. 3-dimensional
- D. 4-dimensional

**6. The thoracic diaphragm is primarily a muscle of:**

- A. Speaking
- C. Singing

B. Exhalation      D. Inhalation

**7. The human head weighs approximately:**

A. 1 kilo      C. 20 lbs  
B. 5 kilos      D. 3 lbs

**8. Your head balances on your spine at the level of your:**

A. Chin      C. Earlobes  
B. Eyes      D. Hairline

**9. Tensing the abs makes the air go:**

A. Faster      C. Softer  
B. Slower      D. Easier

**10. The ribs are shaped like:**

A. Rulers      C. Blades  
B. Pencils      D. Balloons

**Quiz Answers:**

1. A
2. B
3. B
4. B
5. C
6. D
7. B
8. C
9. A
10. C