The Science of Breath by Yogi Ramacharaka (a.k.a. William Walker Atkinson) has enjoyed underground notoriety with trumpet players for many years; high note specialist Maynard Ferguson identified it as an early influence on his decision to adopt yogi deep breathing techniques.

While it's an interesting read from cover to cover, trumpet players interested in getting to the techniques and exercises may be dissuaded by the metaphysical aspects of some of the content.

SO...for the impatient, here's my thumbnail version of the book.

---

**The Yogi Complete Breath**

This is covered in Chapter 8. This is important, as it forms the foundation for all the other exercises in the book. Make sure you master it before continuing.

1. Stand or sit erect. Breathing through the nostrils, inhale steadily, first filling the lower part of the lungs, which is accomplished by bringing into play the diaphragm, which descending exerts a gentle pressure on the abdominal organs, pushing forward the front walls of the abdomen. Then fill the middle part of the lungs, pushing out the lower ribs, breast bone and chest. Then fill the higher portion of the lungs, protruding the upper chest, thus lifting the chest, including the upper six or seven pairs of ribs. In the final movement, the lower part of the abdomen will be slightly drawn in, which movement gives the lungs a support and also helps to fill the highest part of the lungs. At first reading it may appear that this breath consists of three distinct movements. This, however, is not the correct idea. The inhalation is continuous, the entire chest cavity from the lowered diaphragm to the highest point of the chest in the region of the collarbone, being expanded with a uniform movement. Avoid a jerky series of inhalations, and strive to attain a steady continuous action. Practice will soon overcome the tendency to divide the inhalation into three movements, and will result in a uniform continuous breath. You will be able to complete the inhalation in a couple of seconds after a little practice.

2. Retain the breath a few seconds.

3. Exhale quite slowly, holding the chest in a firm position, and drawing the abdomen in a little and lifting it upward slowly as the air leaves the lungs. When the air is entirely exhaled, relax the chest and abdomen. A little practice will render this part of the exercise easy, and the movement once acquired will be afterwards performed almost automatically. It will be seen that by this method of breathing all parts of the respiratory apparatus is brought into action, and all parts of the lungs, including the most remote air cells, are exercised. The chest cavity is expanded in all directions. You will also notice that the Complete Breath is really a combination of Low, Mid and High Breaths, succeeding each other rapidly in the order given, in such a manner as to form one uniform, continuous, complete breath.

*(NOTE: This last bit is important and deserves a bit more attention, especially for trumpet players. Once you begin step #3 above, do not let your chest collapse, and do not unnecessarily tense the muscles of the abdominal girdle. Keep the chest up, as though a string is suspending you lightly from the collarbone, and use the muscles of the abdominal girdle to squeeze the lungs. This exercises the muscles of air support and compression.)*

---

**The Yogi Cleansing Breath**

This technique, covered in Chapter 10, is also called upon in almost every exercise in the book, so make sure...
you have mastered it. It is basically used to "refresh the system" after an exercise.

1. Inhale a Complete Breath.

2. Retain the air a few seconds.

3. Pucker up the lips as if for a whistle (but do not swell out the cheeks), then exhale a little air through the opening, with considerable vigor. Then stop for a moment retaining the air, and then exhale a little more air. Repeat until the air is completely exhaled. Remember that considerable vigor is to be used in exhaling the air through the opening in the lips.

(NOTE: Again, as with the Complete Breath, keep the chest up and squeeze without unnecessary tension from the abdominal girdle.)

---

The Yogi Nerve Vitalizing Breath

This is an exercise well known to the Yogis, who consider it one of the strongest nerve stimulants and invigorants known to man. Its purpose is to stimulate the Nervous System, develop nerve force, energy and vitality. This exercise brings a stimulating pressure to bear on important nerve centers, which in turn stimulate and energize the entire nervous system, and send an increased flow of nerve force to all parts of the body.

1. Stand erect.

2. Inhale a Complete Breath, and retain same.

3. Extend the arms straight in front of you, letting them be somewhat limp and relaxed, with only sufficient nerve force to hold them out.

4. Slowly draw the hands back toward the shoulders, gradually contracting the muscles and putting force into them, so that when they reach the shoulders the fists will be so tightly clenched that a tremulous motion is felt.

5. Then, keeping the muscles tense, push the fists slowly out, and then draw them back rapidly (still tense) several times.

6. Exhale vigorously through the mouth.

7. Practice the Cleansing Breath.

The efficiency of this exercise depends greatly upon the speed of the drawing back of the fists, and the tension of the muscles, and, of course, upon the full lungs. This exercise must be tried to be appreciated. It is without equal as a "bracer," as our Western friends put it.

The Yogi Vocal Breath

The Yogis have a form of breathing to develop the voice. They are noted for their wonderful voices, which are strong, smooth and clear, and have a wonderful trumpet like carrying power. They have practiced this particular form of breathing exercise which has resulted in rendering their voices soft, beautiful and flexible, imparting to it that indescribable, peculiar floating quality, combined with great power. The exercise given below will in time impart the above mentioned qualities, or the Yogi Voice, to the student who practices it faithfully. It is to be understood, of course, that this form of breath is to be used only as an occasional exercise, and not as a regular form of breathing.
1. Inhale a **Complete Breath** very slowly, but steadily, through the nostrils, taking as much time as possible in the inhalation.

2. Retain for a few seconds.

3. Expel the air vigorously in one great breath, through the wide opened mouth.

4. Rest the lungs by the **Cleansing Breath**.

---

### The Seven Yogi Developing Exercises

The "favorite exercises" for developing the lungs.

#### The Retained Breath

This is a good one. Make sure that you're not closing your throat to hold the air in! Keep the throat open and relaxed, and hold the air in by maintaining the negative pressure in the lungs.

1. Stand erect.

2. Inhale a **Complete Breath**.

3. Retain the air as long as you can comfortably.

4. Exhale vigorously through the open mouth.

5. Practice the **Cleansing Breath**.

#### Lung Cell Stimulation

Be careful the first couple of times you try this exercise, you might experience a little dizziness.

1. Stand erect, with hands at sides.

2. Breathe in very slowly and gradually.

3. While inhaling, gently tap the chest with the finger tips, constantly changing position.

4. When the lungs are filled, retain the breath and pat the chest with the palms of the hands.

5. Practice the **Cleansing Breath**.

#### Rib Stretching

1. Stand erect.

2. Place the hands one on each side of the body, as high up under the armpits as convenient, the thumbs reaching toward the back, the palms on the side of the chest and the fingers to the front over the breast.
3. Inhale a **Complete Breath**.

4. Retain the air for a short time.

5. Then gently squeeze the sides, at the same time slowly exhaling.

6. Practice the **Cleansing Breath**.

Use moderation in this exercise and do not over-do it.

**Chest Expansion**

1. Stand erect.

2. Inhale a **Complete Breath**.

3. Retain the air.

4. Extend both arms forward and bring the two clenched fists together on a level with the shoulder.

5. Then swing back the fists vigorously until the arms stand out straight sideways from the shoulders.

6. Then bring back to Position 4, and swing to Position

7. Repeat several times.

8. Exhale vigorously through the opened mouth.

9. Practice the **Cleansing Breath**.

Use moderation and do not over-do this exercise.

**Walking Exercise**

1. Walk with head up, chin drawn slightly in shoulders back, and with measured tread.

2. Inhale a **Complete Breath**, counting (mentally) 1, 2, 3, 4, 5, 6, 7, 8, one count to each step, making the inhalation extend over the eight counts.

3. Exhale slowly through the nostrils, counting as before - 1, 2, 3, 4, 5, 6, 7, 8-one count to a step.

4. Rest between breaths, continuing walking and counting, 1, 2, 3, 4, 5, 6, 7, 8, one count to a step.

5. Repeat until you begin to feel tired. Then rest for a while, and resume at pleasure. Repeat several times a day.

Some Yogis vary this exercise by retaining the breath during a 1, 2, 3, 4, count, and then exhale in an eight-step count.

**Morning Exercise**

1. Stand erect in a military attitude, head up, eyes front, shoulders back, knees stiff, hands at sides.
2. Raise body slowly on toes, inhaling a Complete Breath, steadily and slowly.

3. Retain the breath for a few seconds, maintaining the same position.

4. Slowly sink to first position, at the same time slowly exhaling the air through the nostrils.

5. Practice the Cleansing Breath.

6. Repeat several times, varying by using right leg alone, then left leg alone.

**Stimulating Circulation**

1. Stand erect.

2. Inhale a Complete Breath and retain.

3. Bend forward slightly and grasp a stick or cane steadily and firmly, and gradually exerting your entire strength upon the grasp.

4. Relax the grasp, return to first position, and slowly exhale.

5. Repeat several times.

6. Finish with the Cleansing Breath.

---

**Seven Minor Yogi Exercises**

These are "unnamed" but still valuable.

**Exercise I**

1. Stand erect with hands at sides.

2. Inhale Complete Breath.

3. Raise the arms slowly, keeping them rigid until the hands touch over head.

4. Retain the breath a few moments with hands over head.

5. Lower hands slowly to sides, exhaling slowly at same time.

6. Practice the Cleansing Breath.

**Exercise II**

1. Stand erect, with arms straight in front of you.

2. Inhale Complete Breath and retain.

3. Swing arms back as far as they will go; then back to first position; then repeat several times, retaining
the breath all the while.

4. Exhale vigorously through mouth.

5. Practice the Cleansing Breath.

**Exercise III**

1. Stand erect with arms straight in front of you.

2. Inhale Complete Breath.

3. Swing arms around in a circle, backward, a few times. Then reverse a few times, retaining the breath all the while. You may vary this by rotating them alternately like the sails of a windmill.

4. Exhale the breath vigorously through the mouth.

5. Practice the Cleansing Breath.

**Exercise IV**

1. Lie on the floor with your face downward and palms of hands flat upon the floor by your sides.

2. Inhale Complete Breath and retain.

3. Stiffen the body and raise yourself up by the strength of your arms until you rest on your hands and toes.

4. Then lower yourself to original position. Repeat several times.

5. Exhale vigorously through your mouth.

6. Practice the Cleansing Breath.

**Exercise V**

1. Stand erect with your palms against the wall.

2. Inhale Complete Breath and retain.

3. Lower the chest to the wall, resting your weight on your hands.

4. Then raise yourself back with the arm muscles alone, keeping the body stiff.

5. Exhale vigorously through the mouth.

6. Practice the Cleansing Breath.

**Exercise VI**

1. Stand erect with arms "akimbo," that is, with hands resting around the waist and elbows standing out.
2. Inhale **Complete Breath** and retain.

3. Keep legs and hips stiff and bend well forward, as if bowing, at the same time exhaling slowly.

4. Return to first position and take another **Complete Breath**.

5. Then bend backward, exhaling slowly.

6. Return to first position and take a **Complete Breath**.

7. Then bend sideways, exhaling slowly. (Vary by bending to right and then to left.)

8. Practice the **Cleansing Breath**.

**Exercise VII**

1. Stand erect, or sit erect, with straight spinal column.

2. Inhale a **Complete Breath**, but instead of inhaling in a continuous steady stream, take a series of short, quick "sniffs," as if you were smelling aromatic salts or ammonia and did not wish to get too strong a "whiff." Do not exhale any of these little breaths, but add one to the other until the entire lung space is filled.

3. Retain for a few seconds.

4. Exhale through the nostrils in a long, restful, sighing breath.

5. Practice the **Cleansing Breath**.

---

**Rhythmic Breathing**

This is covered in **Chapter 13**. Rhythmic breathing is extremely valuable for developing good air control.

1. Sit erect, in an easy posture, being sure to hold the chest, neck and head as nearly in a straight line as possible, with shoulders slightly thrown back and hands resting easily on the lap. In this position the weight of the body is largely supported by the ribs and the position may be easily maintained. The Yogi has found that one cannot get the best effect of rhythmic breathing with the chest drawn in and the abdomen protruding.

2. Inhale slowly a **Complete Breath**, counting six pulse units.

3. Retain, counting three pulse units.

4. Exhale slowly through the nostrils, counting six pulse units.

5. Count three pulse beats between breaths.

6. Repeat a number of times, but avoid fatiguing yourself at the start.

When you are ready to close the exercise, practice the **Cleansing Breath**, which will rest you and cleanse the lung.
Conclusion

That's about it for the techniques and exercises. If you're not familiar with the way your respiratory system works, you might want to spend a couple of minutes looking over Chapter 3 and Chapter 5.