# Altitude and Wind Speed

Posture and Breathing

Breath is sound. With it we produce tone and shape musical phrases.

# **Posture**

Good breathing occurs if we are using our back muscles to hold our head, chest, shoulders, and arms off of our rib cage and onto our hips and legs.

#### **Exercises for Posture**

Note that these first exercises are for strengthening the back muscles. They will only help posture if you use correct posture both while doing them. That will train the appropriate muscles so you will be able to maintain good posture at other times.

- **Push-ups** with controlled breathing. Support with either knees or toes. *Strengthens upper and lower back, back, hips.*
- Pull-backs: Stand with arms above head. Inhale. Bring arms down and bend elbows.
  Try to touch elbow behind back. Exhale.
  Strengthens upper back.
- Shoulder strengtheners:
  - o 1. Arms over head with fingers intertwined and palms up
  - o 2. Two arms behind back with hands in praying position
  - o 3. One arm up and one arm behind back with fingers hooked, then switch sides.
- London Bridge: Make a bridge face down using back muscles to lift body up.
- **The Ariel**: Lie face down on the ground. Raise upper body with the arms and hold.
- **Shoulder Rotation**: Elbows at sides, shoulders down and back (aligned over hips) and arms bent to 90° angle. Bring hands apart. Use stretch bands for added resistance. *Strengthens upper back*.

These next exercises are directly intended for posture improvement. See the accompanying handout for additional instructions.

- Chin Glide
  - *Increases neck flexibility.*
- Mid-Back Makeover

Counteracts forward-rolled shoulders.

- Pelvic Tilt
  - Helps to realign hips.
- **Stomach Tuck**: Tighten stomach to lengthen spine and raise rib cage. Release stomach muscles for breathing while maintaining the tall posture.

# **Breathing**

The 4 steps to breathing:

#### 1.Inhalation

The best is like yawning while keeping the mouth and lips in position to play.

- Air enters through the mouth.
- Throat is wide (like saying "hope").
- Tongue is pushed to the front of the neck.
- Waist (abdomen) expands all around and air automatically enters the body.

Please note that the chest, arms, and shoulders do not do anything but stay lifted so the lungs can fill completely with air. They do not help to pull in the air. Instead, they stay lifted and out of the way!

# 2. Suspension of inhalation

The air is held for a split second using only the abdominal muscles. Throat remains wide open. This suspension prepares for exhalation.

#### 3. Exhalation

For the best exhalation, the air should be pushed from the bottom of the lungs, like a tube of toothpaste. Chest cavity and throat are held open so the air can leave the area unimpeded.

In normal breathing, the exhalation is not controlled. When playing the flute, we practice to control the exhalation in <u>length</u>, <u>strength</u>, and <u>solidness</u>. The air leaves the lungs when we press our abdominal muscles back into our backbones. We practice doing this slowly, quickly, gently, suddenly, etc, to make the air come out according to how we want the music to sound.

### 4. Suspension of exhalation

A momentary pause where breathing is held still, rib cage is lifted and throat open. The suspension prepares for inhalation.

# **Exercises for Breathing**

- Aerobic exercise
- Observation
  - o **Lie on the floor** and observe "stomach breathing."
  - o Pant and watch in mirror.
- **Pinwheel spin**: Control the spin of a pinwheel.
- **Timed tones**: Time how long you can play a note using a clock or metronome. Check every day and try to make it longer.
- Ping-pong Pushers: Blow a ping-pong ball and measure the distance. Check regularly for improvement.
- **Fill 'er up**: Take a slow, full breath. Then keep bringing in the air slowly. *Or*, take a breath on top of a big breath.
- **Ping-pong Volleys**: Bounce the ball against a solid surface by blowing.
- **Wallpapering**: Stick a piece of paper to the wall by blowing through a straw.
- **The Thinker**: Sit with head in hands and elbows on knees. Take big breaths and feel your back and waist expand. Hold each expansion for 5 counts. Do this 10 times.