

# First Do No Harm

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Where did the phrase “First do no harm” originate?

- Hippocratic Oath? No.
- 1994 book? No.
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## Section 1: Iatrogenic Disease

(treatment-caused disease)

How do we hurt our patients?

How do we hurt ourselves?

### The Seven Deadly Sins of Piano Technology

- These are the seven most common ways in which jeopardize our patients.
- If you find yourself being careless or not paying attention, take heed.
- Do something two dozen times and you establish a habit.

#### 1. *Damper felt damage*

- a. When tri-chord wedges get longer, they tend to grow.
  - i. With seasonal changes the felt swells up and we get bulbous tips. When we step on the pedal we get an Aeolian harp effect: the dampers pluck the strings.
  - ii. Keep the felts trimmed. They don't need to go below the bottoms of the strings.
  - iii. How do they get this way? There are a couple of ways: mutes and pedals.
- b. Avoiding damper felt damage
  - i. Step on damper pedal before inserting temperament strips.
  - ii. Depress the key before inserting a rubber mute.
  - iii. Be aware of dampers at the bass break when pulling a vertical action.

#### 2. *Breaking off hammers when removing/replacing a grand action*

- a. If the action is not too hard to get out, put your hands on the ends of the action, avoiding pressing down on the end keys.
- b. Reach back and grab the bracket. This takes a wide arm span.

#### 3. *Breaking down the key bed*

- a. Slightly lift the grand action when pulling it out or pushing it in so the glides don't catch on the key bed
- b. Watch for grit, extruding screws, glides, and anything that can mar the key bed.

#### 4. *Elongating the balance holes*

- a. This is more than a pet peeve. This is a problem.
  - i. Creates noise
  - ii. Affects back checks & regulating
  - iii. Nothing will hold where you put it.
  - iv. In Hamburg there should be no end play at all. When you life the key a ¼ there should be no play and it should glide down.
  - v. With age these holes get tighter to the point that they impede the rocking of the key. In this instance they need to be opened slightly with a #4 Nickleson round bastard file. Stick it in, pull it out once. If it needs more, use the Yamaha wedge-shaped tool.
- b. When lifting out a key, use two hands. Yanking out a key will elongate the holes.

#### 5. *Cosmetic Sins & General Klutz Factor*

- a. Scratching the finish
  - i. Writing on a piece of paper on top of the piano: don't use the piano as a writing desk.
  - ii. Missing rubber button with only the nail head exposed can scrape music desks & other parts. Remove the nail, replace the button, or just be careful.
  - iii. Music desk screws can work themselves loose and can scratch the stretcher.
  - iv. When using a screwdriver on any piece of wood, stabilize the tip with one hand while driving with the other hand. Screwdrivers can slip and scratch.
- b. Fixing scratches
  - i. There are things we can carry with us to help overcome some of these problems.
    1. Sharpies,
    2. Touch-up sticks
    3. Ebony<sup>6</sup> finishes for filling dings
    4. Flitz metal polish tube
    5. Oil
    6. Steel wool
    7. Scotch Brite
    8. Wet-dry sandpaper
      - a. On high-gloss polishes, first sand the scratch until the scratch is nearly gone.
      - b. Take some Flitz, metal polish, Brasso, with a soft cloth
    9. Cleanser
      - a. Bon Ami is the best
      - b. To rub out white water rings, make a slurry of Bon Ami and oil on some felt.
      - c. Felt with toothpaste will remove fingernail polish streaks
- c. When removing a music desk, hold it by the ends of the base.
  - i. Do not hold it by the hinged music board or the hinges will be compromised.
  - ii. Place one hand under the front of the desk while holding the top of the hinged board, stabilizing both parts simultaneously
  - iii. Or fold down the music board and hold the two outside ends

6. *Bumping the cheek blocks*
  - a. If the pins are bent or the shims get squished the block adjustment loosens.
7. *Ignoring the hinges*
  - a. Here's a habit to get into: before opening the lid of a grand piano, take five seconds to make sure the hinge pins are in.
  - b. If there are no pins in the hinges, do not open the lid until pins are fully inserted.

## **Section 2: Don't Harm Yourself**

Ways we harm ourselves

- Improper lifting
  - To insert caster cups on a grand, get on your hands and knees and lift the piano with your back.
  - When lifting anything heavy, keep your back straight.
- Overdoing it with manual tools
- Carelessness with power tools
- Improper hammer technique when tuning
  - Hold arm with palm towards yourself
- Natural causes
- Hitting keys too hard without protection
  - Pounders
  - Ear protection
- Tuning & operating shop equipment without sound protection
- Upper back and shoulder pain
  - Stretching
  - Put your hands on each side of a doorway and lean into the opening
  - Indian clubs look like bowling pins. Swing them in different patterns to work your muscles and get the fluid through them.
- Causes of tendonitis
  - Easing lots of keys can cause tendonitis
    - Invest in a key easing iron
    - VS Profelt depends on the size of the caul.
      - Put a couple drops on each bushing, put in the caul overnight.
    - Computer too much
      - 2" ABS tube with a 6' length of rope tied to a small dumbbell.
      - Wind up the b=weight to the tube three times up and down every other day
- Hearing Protection
  - Knowing what we know now, it is imperative to protect our hearing
- Chemicals
  - Lubricants
    - Ballistol
    - ProLube better fumes than
    - McLube

- Hammer lacquer
- Adhesives
  - CA glue
  - Stick Fast
- Key Leads
  - Beethoven had lead poisoning
  - Use gloves
  - Respirator

In closing

- Be happy
- Be healthy
- Take a hike
- Learn how to dance