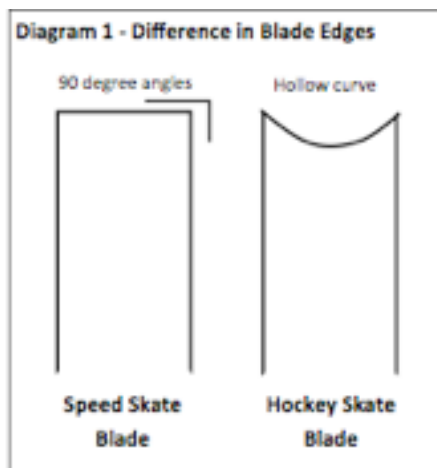


## BASIC SHARPENING TECHNIQUE for speed skates



The best way to learn how to sharpen is from an experienced coach or skater. The internet and skating sites also offer a wealth of information. (<http://www.indyspeed.org/equipment/SharpeningYourSkates.pdf>, <http://www.speedskatepei.com/sharpen.html>, <http://www.ellismethod.net/files/Tips/Jan10.html>)

Speedskate blades should be sharpened every 2-6 hours of use. They are “flat ground” with a 90 degree angle, whereas hockey and figure skates are “hollow ground”. The blades must be sharpened by hand, and will be ruined if sharpened like hockey skates. The 2 blades must be simultaneously sharpened so that the blades are mirror images of one another, both in the rocker and in the amount of blade on each skate.



*Rocker* is the slight bottom curve of the blade.



*Bend* is the slight right to left curve of the blade.

### EQUIPMENT for starter kit

- Jig (*Pennington or Maple, etc*)
- Sharpening Stone 11.5 x 2”  
*with coarse and fine sides*
- Burr stone or carbide
- Honing oil or light mineral oil  
*(not WD40 or baby oil)*
- Lint free Rags
- Toothbrush



## SETTING UP

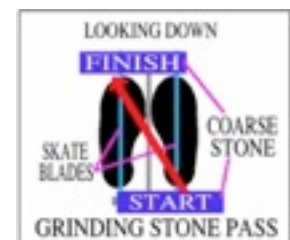
- ★ Check that the blades have not moved and all bolts are tight. Remove any burr present on the blade before starting.
- ★ Always set up the jig in exactly the same way, keeping the orientation of the front and back supports the same each time. Tighten the front support to the holding bar first. Do not tighten the back support to the bar until you have adjusted for the length of the skate.
- ★ Place the skates in the jig the same way every time, with the arches of the skates together and the front of the skates to the front of the jig. Adjust the distance of the back support so the boots hang freely without touching the frame. Tighten the back support to the bar before tightening the blade brackets.
- ★ Tighten the blade brackets at the back first, making sure that the skates are flush against the end-stop. Then tighten the front brackets.
- ★ Use the stone as a guide to check that the skates are level before continuing:
  - a) Place the stone, smooth side down, on the blades-if the stone rocks, the blades are not set correctly.
  - b) Draw the edge of the stone gently across the blades. A thin etch mark completely across both blades shows that the blades are level. If the etched line only covers a portion of one blade, adjust the skates until a subsequent check shows a complete etch mark.
  - c) If the skates are not level, undo the blade brackets, check the jig for tightness to the bar, check skates are flush to the restraining bar and that there is nothing between the blades and the jig, clean the blades to remove any residue, etc. Re-tighten and check again for level.

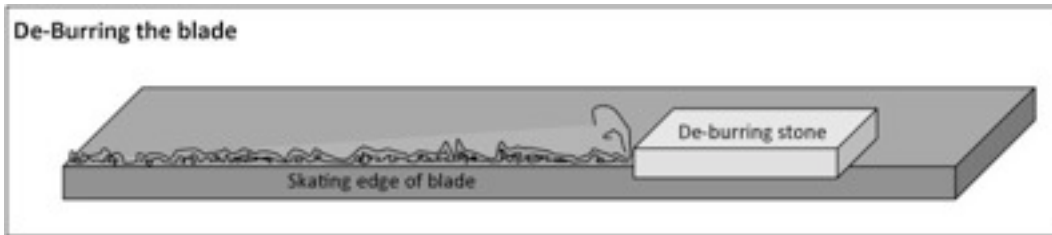
### SET UP Steps

- ★ Boot and blade check
- ★ Set up jig (front support)
- ★ Set skates in jig (back support)
- ★ Blade brackets
- ★ Check for level

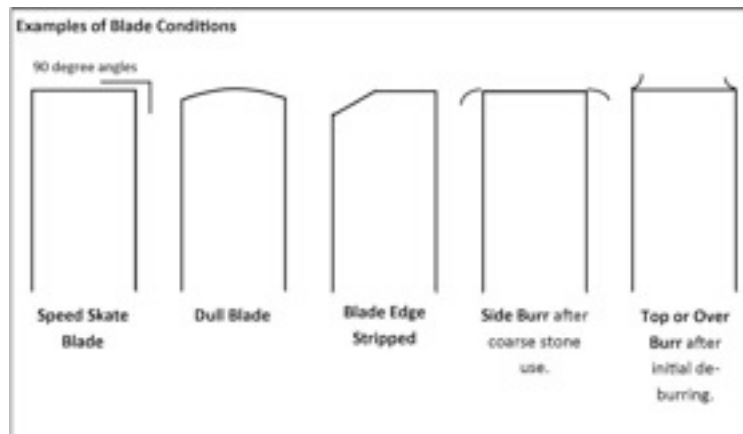
## SHARPENING

- ★ Apply a light even coat of honing oil onto the coarse side of the stone-the toothbrush can be used to spread the oil.
- ★ Note that during the sharpening process, there is no need to press on the stone. The weight of the stone itself provides enough pressure. The sharpening motion is always full, long, even strokes from one end of the blade to the other. Reposition the stone from right to left during sharpening to avoid grooves or ruts in the stone.
- ★ With the jig facing you, use the coarse (grinding) side of the stone and go back and forth at an angle, alternating left to right as you move stone. This "bow tie" or "butterfly" pattern creates a cross cut on the blade. Do 20 motions one way, flip the jig around and repeat.
- ★ Repeat until you achieve a very slight "lip" or "burr" along the whole length and on each side of the blade. Check using your finger nail.
- ★ Keep blades in jig and remove burr along both sides using a deburring stone or carbide. Be careful to not tilt the stone, which can cause the edge of the blade to be "stripped". If this happens, the sharpening process must be redone from the beginning.





- ★ Polish the blade using the smooth side of the stone by moving back and forth along the whole length of blade. Flip the jig every 10 motions. You should only need to do this 2 or 3 times, total of 20-30 motions.
- ★ Remove blades from jig. Firmly holding the skates, use the deburring stone to remove the final burr. Check for sharpness. If there is a dull spot repeat the whole process.



### Sharpening Notes

- ★ Full strokes, NO pressure
- ★ Flip jig for even sharpening
- ★ Coarse Stone: bow-tie pattern for crosscuts
- ★ Small burr along full length of both sides
- ★ De-burr in jig, avoid tilting of carbide or stone
- ★ Fine Stone: polish, back and forth, gradually move stone side to side to avoid grooves
- ★ Remove from jig for final de-burr
- ★ Check and repeat if dull spots

## STONE CARE

After each sharpening session, clean the metal particles from the stone using oil and scrubbing lightly with a toothbrush in a circular motion. Dab with a lint free cloth. Wrap the stone in a lint free cloth for storage and to protect the edges from damage. Inspect stone for flatness, grooves, nicks and cleanliness periodically. Occasionally deeper cleaning may be necessary.

## SKATE CARE

Dry skates thoroughly after use and store with soft covers on. Use hard guards for walking. Clean hard guards periodically because dirt in them can dull the skates.