

# MCCSC: Balance & Agility Summary

## What is Balance & Agility?

Balance refers to controlling how you stand on a ski whilst it moves on an uneven surface and you move your body to add propulsion.

Agility refers to changing your body's direction of travel and speed in a controlled manner, often quickly. Agility builds on balance but also involves being dynamic and pre-empting or adapting to external factors.

## Why is it Important?

Balance & Agility help with:

- Skiing over uneven snow or tarmac surface.
- Ski technique (it is moving from one ski to the other whilst moving after all!)
- Cornering – knowing ability to corner at different sharpness of corner at different speeds.
- Changing speed (both external imposed e.g gradient changes, snow/tarmac speed change and intentional e.g overtaking).
- Avoiding obstacles e.g fir cones (or used drink gel packs!) in track or other skiers.
- Accuracy of positioning – know ability to ski to points on track.
- Looking ahead to where you're going – avoid or prepare for problematic conditions rather than be surprised.

## Ok, But Why Do We Really Do It?

What Balance and Agility is predominantly about is training you how to move on skis as naturally as you walk, jog and run. Transitioning from you thinking about how you move on skis to focus on the task of going somewhere.

## Balance

### Balance Position<sup>1</sup>

- Toe / Knee / Nose - Focus on bending ankle rather than knee and focus on balancing by moving hip / torso sideways rather than leaning shoulder
- Tilt pelvis up rather than sit back – focus on using abs and glutes to maintain pelvis position.
- Keep chest and head up<sup>2</sup>.
- Weight on mid to ball of foot (keep foot flat but be aware there is little or no weight on heel).

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<sup>1</sup> It might be useful to practice indoors with a full length mirror to check position.

<sup>2</sup> Looking at reference point ahead both helps with developing balance and stops you hunching over, looking at your feet.

## Progression

- Static balance.
- Move up and down.
- Step sideways/ forwards/backwards.
- Dynamic (leaping).

At each level try with eyes shut<sup>3</sup> once happy eyes open.

## What to Balance On

- Standing on ground.
- Standing on balance cushion/ BOSU ball<sup>4</sup> / wobble board or similar
- Standing on roller/ snow ski.

## Wherever

- One leg balance brushing teeth<sup>5</sup>.
- One leg balance when standing in queues (at least get used to moving weight from leg to leg).
- Ground or balance cushion in front of TV (bare foot).
- Walk along painted lines where you see them (e.g cycle tracks, car parks).
- Walk along curb stones (not on main roads).

Once you can do them normally, focus on keeping weight on ball of foot.

## References

- On Balance  
201508\_balance.pdf
- Balance Drills by Scott Dixon  
<https://youtu.be/qvBIZd73KRw?si=ZKT25J8XWjNiDSFJ>
- Balance cushion / Core balance wobble cushion/ air stability cushion



- BOSU ball. You might see/use them at gym (bit expensive compared to balance cushion just for balance practice at home).



<sup>3</sup> Ok, perhaps not for leaping on roller/snow skis!

<sup>4</sup> See References for what these look like.

<sup>5</sup> Electric toothbrush easier than manual, particularly with eyes shut!

# Agility

## Safety

Expect to fail at agility drills - set them up so you can fail without serious injury:

- Use chalk marks or use something light so hitting it doesn't matter (cones, bars that can be knocked off).
- Have break out routes (spaces in cones, plenty of tarmac/ grass run offs).

## How to Use Drills

Combine these drills or modifications to focus on agility aspects you want to work on.

You can both have a session solely focussed on Agility or when skiing laps you can set up an agility section do each time<sup>6</sup>.

## Various Drills and What Aspect They Primarily Focus On

- Slalom:
  - Wide spacing. Focus - changing cornering direction.



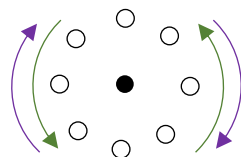
Try initial spacing of about 3m between cones and lateral spacing on about 2m. Consider using pacing rather than tape measure.

- Close spacing. Focus - fast moving feet.



Try initial spacing of about 1.5m between cones.

- Circle (do in both directions), alternatively just do 180° turn. Focus - cornering.



Try initial circle radius of about 1.5m (e.g length of one ski pole)

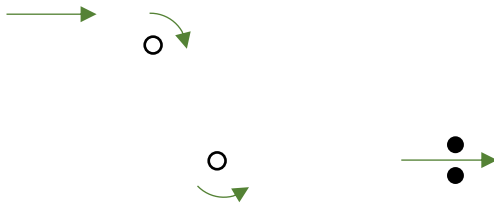
<sup>6</sup> Not only is it a change from steady skiing, you might find how you tackle a course is different after an hour's skiing compared to when you started fresh!

- Figure of 8. Focus – cornering in both directions without having to stop like circle.



Try initial cone spacing of about 3m (e.g length of two ski poles)

- Tarmac/grass/tarmac transition. Focus – moving between surface types (e.g fast/slow snow).
- Single ski ski (double pole for a distance on one ski). Focus – moving up/down one leg balance on ski.
- Single ski slalom (do slalom standing on one ski and using poles). Focus – one leg balance and control of ski.
- Turning on spot (aka star turn). Focus – Dynamic weight and direction changing. Free test of ability to stop at a point and accelerate from stationary.
- Side step. Focus – balance over foot and dynamic weight changing<sup>7</sup>. Free partial star turn at start and end.
- Backwards ski. Focus – balance over ski and co-ordination (switch from forward to backward motion)<sup>8</sup>. Free partial star turn at start and end.
- Jump over bars. Focus – Dynamic body movement and balance control on landing.
- Cone pickup. Focus - accurate positioning, Dynamic body motion.
- Skiing between setups. Focus – transition between techniques, controlling acceleration/ deceleration.
- Turn into cone gap. Focus – ability to aim for a precise point and adjust feet timing.



Example setup. Using an existing track mark or chalk a mark as aim point is often good enough.

- Under bars. Focus - schussing position.
- Press-up start. Focus – just showing-off (well strength, whole body dynamics)!

<sup>7</sup> Real world application. Side stepping up and down steep slope, standing across slope for rest or in order to executing parallel stop.

<sup>8</sup> Real world application. Can find yourself unintentionally going backwards e.g climbing a hill or over-rotating a parallel stop.

## Alternatives to Cones

If you don't have cones or it's not convenient to use them e.g in public space.

- Ski at edges of track or car park grid lines (more perpendicular the angle the tighter the turn).
- Use natural features of track e.g weave around island at UCLan.
- Ski turn/slalom at cross grids in car park.

## References

- Cornering Drills by Scott Dixon  
<https://drive.google.com/drive/folders/1tWKPbymxPCL1LxRiBjRXSNgFNUOua8jh>
- For inspiration and aspiration! Rollerski Skate Agility Course with Zak Ketterson (2022 Central REG Camp, Michigan)  
<https://youtu.be/rOMInFL7Zto>
- For inspiration and aspiration! Rollerski Skate Agility Course with Anabel Needham (2022 Central REG Camp, Michigan)  
[https://youtu.be/vL\\_w-TL3mJM](https://youtu.be/vL_w-TL3mJM)