Double Pole

With better grooming and better equipment this technique has gotten from being used only in very easy terrain to rolling and climbing terrain as well. With more and more mass starts and sprints, this is also the technique that a lot of the time is used in the critical last few meters of a race. It is important to understand that the double pole technique is not just being powered by the arms, but the entire body. The key is to get as much of your body weight through the poles at the critical time around the power position.

Summary

- Enough time before pole plant to come down with the poles and body as one unit
- Optimal power curve with main power impulse from impact with the ground through the power position
- Letting the arms swing back naturally while the body repositions to create optimal conditions for the preparation phase

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BODY POSITION

A - Power position

Since we do not have to worry about the legs creating power for a kick the focus can be 100% getting all the power into the poles. The arms are usually closer to the body/temples than in striding or kick double pole. This is because we are loading more body weight onto the poles and the closer arms allow for a more stable and powerful torso.

B - Power line

With weight being distributed evenly on both skis in the double pole, the powerline is usually not a big issue for most skiers. However, asymmetry can be observed that should be corrected. Are shoulders and hips level and are elbows equally pointing out to the side? These details should be looked at, and the athlete should be as symmetric as possible.

C - Pole lift

To ensure minimal COM movement up and down, the skier sets a stable base with the lower body and pole lift happens together with the rising of the upper body. In slower speeds the tempo will be higher and the upper body movement forward and the pole lift will finish earlier than in higher speeds. At fast speed the upper body starts slightly rising back up just around the pole lift.

TIMING

A - Pole plant:

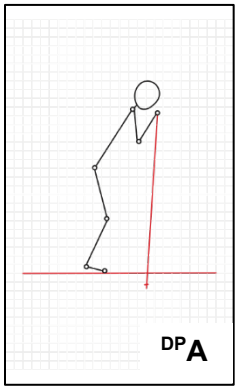
Through a well-timed preparation phase the pole tips have come far enough forward for the poles to be set down from above (not from behind), with the entire body ready to go into the power position. The faster speed, the further forward the pole tips are planted, and the arms are slightly more extended from the body. The poles should be set down firm, but without smashing them into the ground. Core activation needs to be timed so the body can hold its position as the poles hit the ground.
Normal mistakes are starting to move forward with the upper body too early before the poles are in position (basically skipping the preparation phase) resulting in the upper body leaning too far forward at the pole plant and the hands being over the head and/or not being able to hold an active core at the pole plant resulting in an arch through the back.

B – Pole Push

The main power should be applied to the poles from contact with the ground, peaking around the power position.

C - Reposition phase

The body starts to reposition itself back up just after the poles are passing through the power position. At slower speeds this means at the exact same time as the pole lift. The goal is to get the body back up in time for the arms and pole tips to come all the way back up to the Pole Plant position. Slight micropause at the top of the reposition phase/start of the pole plant allows for longer glide and time for optimal repositioning.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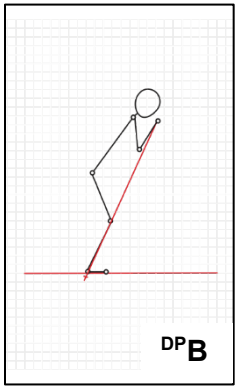
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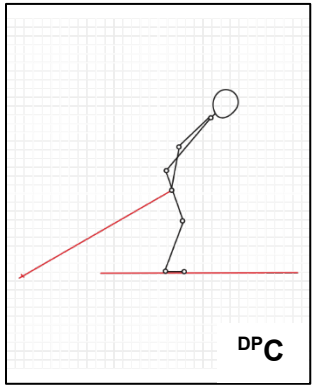
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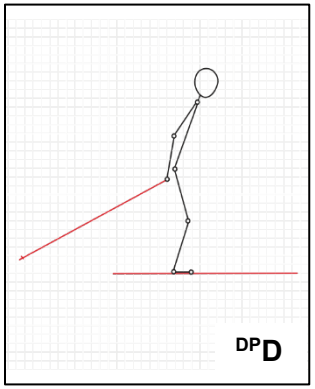
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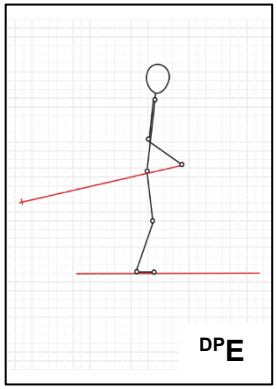
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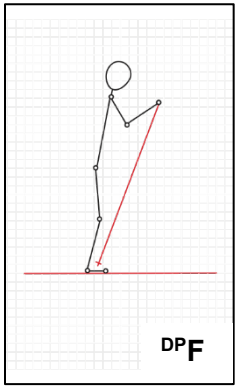
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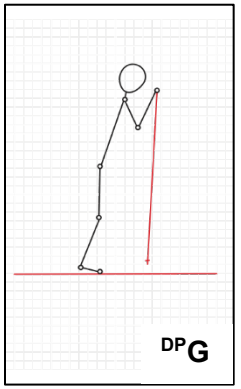
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