

# Pole Vault

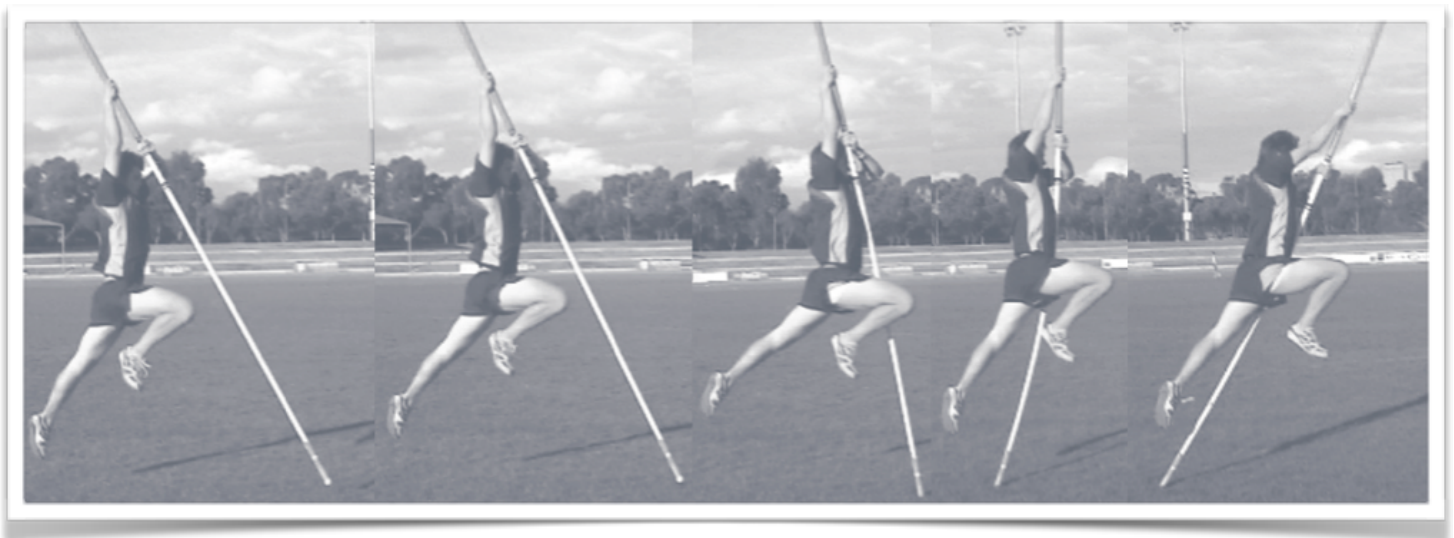
## Part 1

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February 7, 2015  
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### Getting ready for the season

- New box collar rules
- Check your pit for critters and vandalism
- Inventory and label your poles. Do any of them need weight labels?
- Make sure you have padding for any hard surfaces around your pit
- Make sure the pieces of your pit still attach tightly together to avoid vaulters landing in the cracks

### Where to begin? The grass! The sand!

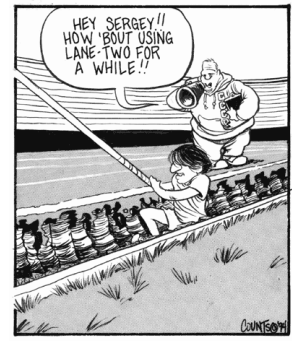


- With no pole: Run and jump into the sand, jumping off one foot and landing on the opposite foot. Use this to determine takeoff foot for pole vault. Left foot = right hand on top of pole.
- Tall takeoff
- Top arm straight
- Drive knee
- Trail leg stays back
- Hips behind the pole



## Practicing the Approach

- Standing plants
- Powerful, consistent start (without pole, then with pole)
- Walking with no pole to practice counting steps (always count down!)
- Walking with pole drop
- Jogging with pole drop
- Full speed



Between the ages of 13 and 14, Sergey Bubka performed 10,000 pole-runs.



### **Ready for the Pit?**

- Must be able to sand vault safely!!
- Start with a short run, I like 3 lefts (6 steps)
- Be able to execute a consistent run and good takeoff before adding a swing.
- Keep the grip low enough that they are consistently landing deep in the pit.



### **Educate Your Vaulters**

- Teach them how to take care of the poles
- Encourage them to get spikes with heel padding (jump spikes, mid distance spikes, etc) not sprint spikes
- Encourage them to watch Youtube videos of elite pole vaulters
- Teach them to hang on to the pole if something is going wrong
- Encourage them to attend camps/clinics/club practices
- Teach them to check to make sure the box collar is in the right place before every jump

### **Pole Vault Clubs/Camps**

- UW Track and Field Camps (Seattle) <http://abcspportscamps.com/uwt>
- Northwest Pole Vault Camp and Club (Seattle) <http://www.nwpolevault.com>
- Snohomish Sports Institute (Snohomish) <http://www.snohomishsportsinstitute.com>
- Bellingham Parks and Rec
- ProVault NW (Kent) <http://www.provaultnw.com>
- Columbia Striders Track Club (Kelso) [columbiastriders@yahoo.com](mailto:columbiastriders@yahoo.com)
- Willamette Striders (Portland, OR area) [willamettestriders.com](http://willamettestriders.com)

# Pole Vault

## Part 2

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### When to move to a longer run?

- Shorter runs in the first few meets will help the vaulter develop technique, reduce overuse injuries and set them up to peak at the end of the season
- Athlete should have a consistent run and takeoff before moving to a longer run
- Suggested minimum heights before advancing to a longer run. A talented athlete should have higher heights applied.

#### *Boys of average ability*

- 3 lefts (6 steps) - 6'
- 4 lefts (8 steps) - 8'
- 5 lefts (10 steps) - 10'
- 6 lefts (12 steps) - 12'
- 7 lefts (14 steps) - 14'

#### *Girls of average ability*

- 3 lefts (6 steps) - 5'
- 4 lefts (8 steps) - 6'6"
- 5 lefts (10 steps) - 8'
- 6 lefts (12 steps) - 9'6"
- 7 lefts (14 steps) - 11'

### When to Change Poles?

- Raising the grip slows down the pole rotation (landing shallower in the pit)
- Lowering the grip speeds up the pole rotation (landing deeper in the pit)
- Raising the grip allows the pole to bend more
- Lowering the grip makes the pole bend less
- Ideally you want the vaulter clearing bars with the standards all the way back
- Big bend + shallow landing = Lower grip on same pole
- Big bend + deep landing = Move to a stiffer pole and raise grip slightly
- Small bend + shallow landing = Lower grip and move to smaller pole if possible
- Small bend + deep landing = Raise grip on same pole

### Bending the Pole

- Do not change technique!
- No need to try to bend the pole.
- A tall aggressive takeoff will lead to a bending pole
- Teaching athletes to jam their bottom arm in there will lead to more pole bend, but a vaulter who has a hard time swinging upside down
- Give the athlete a small pole from a short run that flexes slightly. Gradually progress to greater pole bend, when they are vaulting consistently and safely. Avoid BIG pole bends for high school vaulters, especially beginners!

## What Pole?

### Relative Resistance Chart - SkyJumpers.com

10' 65			This chart assumes that for every six inch length							
10' 70	10'6 60		increase in pole length the vaulters maximum							
10' 75	10'6 65		allowable body weight is reduced by ten pounds.							
10' 80	10'6 70		This system helps reduce over-bending and thus pole breakage							
10' 85	10'6 75									
10' 90	10'6 80	11' 70								
10' 95	10'6 85	11' 75	Vaulters who are incapable of vaulting on a pole equal to or greater than							
10' 100	10'6 90	11' 80	their body weight should move to a shorter pole.							
10' 105	10'6 95	11' 85								
10' 110	10'6 100	11' 90	11'6 80	Vaulters should not advance to the next pole until they can vault on a po						
10' 115	10'6 105	11' 95	11'6 85	ten pounds greater than their body weight.						
10' 120	10'6 110	11' 100	11'6 90	12' 80						
10' 125	10'6 115	11' 105	11'6 95	12' 85	Good pole vaulting programs offer progressions					
10' 130	10'6 120	11' 110	11'6 100	12' 90	of poles, so that as vaulters improve they can					
10' 135	10'6 125	11' 115	11'6 105	12' 95	efficiently move to longer and stiffer poles.					
10' 140	10'6 130	11' 120	11'6 110	12' 100	12'6 90					
10' 145	10'6 135	11' 125	11'6 115	12' 105	12'6 95					
10' 150	10'6 140	11' 130	11'6 120	12' 110	12'6 100					
	10'6 145	11' 135	11'6 125	12' 115	12' 6 105					
	10'6 150	11' 140	11'6 130	12' 120	12'6 110	13' 100				
		11' 145	11'6 135	12' 125	12'6 115	13' 105				
		11' 150	11'6 140	12' 130	12'6 120	13' 110				
		11' 155	11'6 145	12' 135	12'6 125	13' 115				
		11' 160	11'6 150	12' 140	12'6 130	13' 120	13'6 110			
			11'6 155	12' 145	12'6 135	13' 125	13'6 115			
			11'6 160	12' 150	12'6 140	13' 130	13'6 120			
			11'6 165	12' 155	12'6 145	13' 135	13'6 125			
			11'6 170	12' 160	12'6 150	13' 140	13'6 130	14' 120		
				12' 165	12'6 155	13' 145	13'6 135	14' 125		
				12' 170	12'6 160	13' 150	13'6 140	14' 130		
				12' 175	12'6 165	13' 155	13'6 145	14' 135		
				12' 180	12'6 170	13' 160	13'6 150	14' 140	14'6 130	
					12'6 175	13' 165	13'6 155	14' 145	14'6 135	
Each line on this chart represents a set of poles					12'6 180	13' 170	13'6 160	14' 150	14'6 140	
5 pounds stiffer than the line which precedes it.						13' 175	13'6 165	14' 155	14'6 145	
All poles on an individual line offer approximately						13' 180	13'6 170	14' 160	14'6 150	15' 140
the same resistance to penetration.						13' 185	13'6 175	14' 165	14'6 155	15' 145
						13' 190	13'6 180	14' 170	14'6 160	15' 150
							13'6 185	14' 175	14'6 165	15' 155
							13'6 190	14' 180	14'6 170	15' 160
To build a better progression of poles in your program. First circle all the					13'6 195	14' 185	14'6 175	15' 165		
sizes you currently have at your disposal. Then fill in the key pole sizes.					13'6 200	14' 190	14'6 180	15' 170		
							14' 195	14'6 185	15' 175	

### Mid Marks and the Mid Mark Chart

- The mid mark is a spot either 4 steps (2 lefts) or 6 steps (3 lefts) from takeoff
- Watching this spot gives you a better reference for changes to the run than the takeoff mark
- Vaulters will often stretch out their last few steps to try to hit a certain takeoff
- Example: A vaulter who is too far away may stretch their last few steps and takeoff too close. Moving them closer may help them to run with better mechanics and take off in the right spot.
- Some coaches use this chart religiously, others use it as a guide. If your vaulter is more than a foot or so off from where their mid should be on this chart, take a careful look at video of their approach and see if their run mechanics need improvement

Bar Height	Hand Grip	4 Step Mark	6 Step Mark
8'0"	9'10"	24'2"	33'
8'6"	10'2"	25'	34'
9'0"	10'6"	25'10"	35'
9'6"	10'10"	26'6"	36'
10'0"	11'1"	27'4"	37'
10'6"	11'5"	28'2"	38'
11'0"	11'8"	28'10"	39'
11'6"	12'0"	29'8"	40'
12'0"	12'3"	30'6"	41'
12'6"	12'7"	31'4"	42'
13'0"	12'10"	32'	43'
13'6"	13'2"	32'10"	44'
14'0"	13'5"	33'6"	45'
14'6"	13'9"	34'4"	46'
15'0"	14'0"	35'2"	47'
15'6"	14'4"	35'10"	48'
16'0"	14'7"	36'8"	49'
16'6"	14'11"	37'6"	50'

### How Much Vaulting?

- Try to limit vaulting on to the pit to maximum of ~3 times per week, including meets
- Generally try not to vault the day before a competition, especially later in the season
- On the other days vaulters should work on other events and practice pole runs and a little sand/grass vaulting if they are healthy