

Glide Ratio Optimization in the Olympic Ski Jump via Cosmetic Penis Enlargement

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Abstract

With the IOC closely monitoring ski jumping suits, there are far less methods for optimizing the lift to drag ratio. To prevent athletes with superior aeronautical engineering knowledge from getting a leg up on other jumpers, monitors now track each suit before and after jumping. Athletes are only given their suit 30 minutes before the jump. This prevents any advantage from greasing the suit for a better laminar flow or stiffening arm pits and crotch area for more wing surface area like in the good ole days. Athletes may only increase their coefficient of drag and surface area with body shape as each suit is specifically fit by independent monitors ahead of the competition. In this paper we will evaluate the effectiveness of using cosmetic penis enlargement using hyaluronic acid for increased girth to expand the crotch region of an official ski jump suit and increase the wing surface area. This paper will show that a only a few inches will go a long way on the slope.

Keywords: Aerodynamics, Olympics, Ski Jumping, Winter Sports, Airfoils, Penis Enlargement, Hyaluronic Acid

1. Introduction

We have long been selecting ski jumpers for their ability to form an Eppler E387 air foil in the air [1]. This is enhanced by never doing a push-ups or squats and exclusively working those upper back muscles. At a low angle of attack (AoA), this style of flat air foil is optimized for the highest lift to drag. The Coefficient of Drag C_L is extremely difficult to increase in training [2]. It is much easier to improve airtime by increasing the body surface area. As shown in the figure below, the crotch expansion is the easiest way to increase surface area [3].

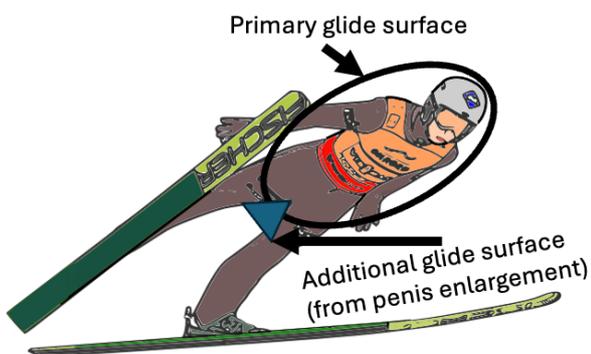


Figure 1: Additional surface area gained by cosmetic enhancement

A well-trained ski jumper will spread their legs into a V-formation to fully utilize whatever fabric they have to stretch out and increase their own surface area [4]. Unfortunately, the IOC is getting really stingy this year and won't allow for any extra fabric unless it's necessary to fit the body of the jumper. Suits must be no more than 4cm larger than the surface area of the body [5]. This has forced us to resort to injecting hyaluronic acid to increase our skier's penis to increase girth to get that precious lift producing crotch fabric.

2. Methodology

We begin with the fundamental lift equation shown below where ρ is air density, V is velocity, S is surface area, and C_L is the Coefficient of Drag.

$$L = \frac{1}{2} \rho V^2 S C_L$$

The Skier may do their best to decrease drag to maximize the velocity on the jump and can work out their way into a large back and flat chest and butt for that classic Eppler E387 air foil. A change in surface area roughly translates to a linear change in lift!

$$L \propto \Delta S$$

Let us assume horizontal velocity will be roughly the same and we would like to increase the hang time in the air. The equation below shows the relation between our negative vertical velocity and surface area.

$$V_z = \sqrt{\frac{2W}{\rho S C_L}}$$

This shows an inverse square root relationship between the drop rate and the change in surface area as shown below.

$$V_z \propto -\Delta S^{-1/2}$$

With a 5-8 second hang time at 25-30m/s an inch or two of crotch girth may result in a 4% increase in surface area and a 2% increase in hang time which linearly increases distance. That's the difference between a bronze and gold!

3. Results

Let us assume a ski jumper with a 90cm torso is hitting the end of the ramp at 28m/s who would normally achieve a 5s hang time. The results from the increased hang time, and distance increase is shown in table 1.

ΔPG	$\Delta S/S_0$	Δt (s)	Δx @28m/s
0.9cm	1%	0.025	0.7m
1.8cm	2%	0.05	1.4m
2.4cm	3%	0.075	2.1m
3.6cm	4%	0.1	2.8m
4.8cm	5%	0.125	3.5
5.4cm	6%	0.15	4.2m

Table 1: Proportional girth enhancement to increase in jump distance

With the top ski jumpers easily making +120m jumps, the increase in penis girth may be the most important factor once applied to these new rules. Not to get too political, but it may be unfair for men to compete in women's sports in this case.

4. Discussion

How much girth can you really add with Hyaluronic acid? It depends on what you have to work with. Given a small amount of member thickening, it would not be difficult to achieve a proportionally significant difference in jump suit surface area. If an athlete has a long one, just a small amount of thickening will be enough if they coil it up just right. 30ml of injected hyaluronic acid can safely increase penis girth by 3cm circumference before there is medical and aesthetic pushback. It only lasts 6-18 months as well. This is easily enough to achieve the upper ranges presented by this paper.

In 2022, the top three jumpers average jump distance was within 1-3m average of each other! This may be the only way to place this year. It's not like the body enhancement is medically dangerous like steroids, it's actually pro-social. Some competitors have suggested that there are some other advantages from these enhancements while socializing in the Olympic village that the easily collapsable cardboard anti-sex beds cannot handle [6]. This is unrelated but it could be a reasonable alibi if an investigation were to take place in the future.

5. Conclusion

With a small amount of cosmetic penis filler, non-compressible underwear and some clever crotch coiling, it is possible and legal, according to the current rules of the Olympic games, to easily increase a ski jumper's jump distance by up to 6% using this method. At the end of the games and after all the training, it doesn't matter what inches you start with but what you do with them that can get you the gold!

References

- [1] LeeeeeeeeeROOOOY B. Schwarzcough 2016 *Emmulating the Eppler E387 Air Foil in Ski Jumper Bodies for Optimized Glide Ratios :: Journal of Arguably Legal Olympic Aeronautics*
- [2] Brian Reynolds 2018 *Optimizing the body for in Air Coefficient of Drag :: Journal of Extremely Specific Body building*
- [3] Nina Seam 2015 *Localized Surface Area Expansion in Ski Jumper Suit Design :: Annals of Human Squirrel Suit Technology*
- [4] Legolas Falling Leaf 2015 *Spread Them Legs: The Aerodynamic Benefits of Increased Leg Spacing in the Olympic Ski Jump :: Sports in Kinematics Review*
- [5] 2026 *Olympic Ski Jumpers to be investigated for 'injecting penises with acid' :: The Sunday Times :: <https://www.thetimes.com/sport/winter-olympics/article/olympic-ski-jumpers-penis-enlargement-wada-wqym7tswt>*
- [6] 2024 *'Anti-Sex' Beds of the Paris 2024 Olympics, Explained :: Forbes :: <https://www.thetimes.com/sport/winter-olympics/article/olympic-ski-jumpers-penis-enlargement-wada-wqym7tswt>*