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A 2019 Guide to Currently Accepted FUE and Implanter Terminology

Maintaining Healthy Hair and Scalp to Improve Growth: Are Sulfate Surfactants Harmful?

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27TH WORLD CONGRESS



ISHRS 2019 BANGKOK  
TRIPLE CROWN  
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FORUM

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## Finasteride for Androgenetic Alopecia Is Not Associated with Sexual Dysfunction: A Survey-Based, Single-Centre, Controlled Study

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### ABSTRACT

**Background:** The occurrence of sexual dysfunction side-effects associated with finasteride use in men with androgenetic alopecia (AGA) is thought to be less prevalent than is publicized. There is a need to investigate sexual dysfunction among finasteride users with population-based controls.

**Objective:** To evaluate the presence of sexual dysfunction in men using finasteride or not using finasteride.

**Method:** Adult men visiting a dermatologist's office for any reason were asked to complete a survey including a modified version of the Arizona Sexual Experience Scale (ASEX) to assess the presence of sexual dysfunction with and without finasteride use.

**Results:** Data from 762 men aged 18-82 were collected: 663 finasteride users and 99 non-finasteride users. There were no significant differences between finasteride users and non-user controls in reporting sexual dysfunction using the ASEX. Regression analysis indicated that self-reporting libido loss and reduced sexual performance, not finasteride use, predict a higher ASEX score.

**Conclusion:** The use of finasteride does not result in sexual dysfunction in men with AGA. These data are consistent with other large survey-based controlled studies.

### INTRODUCTION

Androgenetic alopecia (AGA) refers to pattern hair loss believed to be a result of follicle miniaturization in dihydrotestosterone (DHT) sensitized areas of the scalp.<sup>1</sup> Despite the common occurrence in over 70% of men,<sup>2</sup> onset has been shown to induce loss of self-esteem, depression, introversion, neuroticism and psychological impairment.<sup>3-7</sup> Thus, with only two Food and Drug Administration (FDA) approved medications available,<sup>8</sup> the 5-alpha-reductase inhibitor finasteride is generally considered an important contributor to male health and quality of life. Conversely, a small percentage of finasteride users have associated the medication with sexual dysfunction and Post-Finasteride Syndrome (PFS). The term PFS refers to a combination of the former side-effects with a host of additional symptoms including fatigue, muscle weakness and cognitive problems.<sup>9,10</sup>

Supporting evidence comes from a controlled trial where a slightly higher proportion of finasteride-treated vs. placebo-treated patients reported adverse events related to sexual function.<sup>11</sup> Additionally, an increase in reports of sexual dysfunction has been associated with both finasteride<sup>12</sup> and dutasteride<sup>13</sup> (similar 5-alpha-reductase inhibitor) in an extensive post-marketing database. Moreover, identifying finasteride-related sexual dysfunction may not be straightforward as onset has been described as varied, with reports shortly after drug commencement, during later treatment or after medication discontinuation.<sup>9,10</sup> There have also been critiques that the clinical trials which promoted finasteride as safe and well tolerated had inadequate safety reporting.<sup>14</sup> A mechanism is unknown but it has been proposed that finasteride may lead to a decreased production of neurosteroids, which may regulate sexual desire and function<sup>15</sup> and that impaired testosterone metabolism might lead to relative oestrogen excess.<sup>16</sup>

Nonetheless, it has been stated that observations of finasteride-related sexual dysfunction are less prevalent in the actual clinical experience compared to reports in the literature.<sup>17</sup> Similarly, meta-analysis

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## President's Message

Arthur Tykocinski, MD, FISHRS | São Paulo, Brazil | [president@ishrs.org](mailto:president@ishrs.org)

### Back to the FUTure

The “only FUE” era is heading for a crash. All of the wonders that have been promised on social media in favor of FUE are now

being confronted with so many bad results revealed by mutilated patients/victims. These patients have been left with devastated donor areas and bizarre low hairlines as a result of improper planning and placing. The end result is a loss of credibility for the physicians who made promises they couldn't keep, and this ultimately will put an end to the “only FUE” golden era. No one can stop it now, as it is impossible to hide the truth indefinitely from the public. It doesn't matter how often it is repeated or how many repeat it: sooner or later, the truth will prevail.

Warning the public now is the only way to regain credibility. The hair transplant (HT) industry is taking a side. Our side is the truth.

This will affect each and every one of us, no doubt about it. But mostly, it will affect the “exclusively FUE” advocates, who depend on social media, and, of course, the black market clinics. However, this is not a total surprise and could have been predicted many years ago—“the bill always comes.” But no one could have predicted the size the black market would reach or the degree of damage it would produce. The patients who have been harmed by the black market FUE clinics are starting to talk. More and more, others will be willing to follow and tell their desperate stories. And the world will listen, astonished about what has been done in the past several years, and soon all will start to ruin.

Who will be blamed for this? For sure, it won't be the FUT surgeons who have been trying to alert the public for a very long time about the limitations of FUE, unsuccessfully. In their defense, “exclusively FUE” surgeons would say: “But FUE can be safe as a solo technique if it is properly done and planned.” While this can be true, no one knows what will happen in the long term, say 20-30 years from now. We don't know for a simple reason: this future is still very distant. What about body hair transplant (BHT)? We know it's not the same quality; it doesn't grow much—except for beard—and has less integration. Anyway, if you don't spoil the donor area, the beard will be enough, if ever needed.

Please, don't take this wrong: FUE can be wonderful, when properly selected and performed. When I did the scientific program for Polanica Zdrój FUE Immersion, the first ISHRS World Live Surgery Workshop exclusively devoted to FUE, one important session was titled: “All FUE ends in FUT and all FUT ends in FUE.” I really mean that.

It doesn't matter who did wrong or who did good; we will

all pay the same price. Some more and others less; but, as a whole, the industry will suffer. The day after the crash, the public will be skeptical about the social media and their “truth.” This shouldn't come as a total surprise to any of us. Even the most religious FUE advocates have known that this day was coming. There is no doubt it will happen, though the degree of damage may vary. But the real question is: What will be next, after the FUE crash?



The relationship between a doctor and a patient is based on trust. This is the strongest link that we can have, and that we should have. This link will be broken once again: first the FUE radicals blamed FUT for everything, including breaking the patients' trust. Now their beloved technique, performed by the black market

clinics, is chipping away at that trust once again. The public will be confused: who is the bad one and, please, who is the good one? Can FUE alone recover its credibility or will FUT be necessary to save the HT industry, once again? No one knows the answer to this, which, I guess, probably is yes. Not for FUT to stand alone, but to stand alongside FUE. Some years ago, most would laugh about this possibility, but today maybe this deserves consideration. That's exactly what I am proposing here; let's stop and think about it for a while.

FUT has been done for decades with consistent results and management of the donor area. Despite it being reliable, we know it is not perfect. Is anyone perfect, or is there any perfect technique? However, FUE in little more than a decade is about to blow up the HT industry. Of course, the villain here is not FUE itself, but rather the bad use of it. In reality, for advanced baldness, no technique can accomplish this task alone. But by combining them, it is possible to maximise the donor area management and reduce the risks. FUT and FUE are complementary, exploring the donor area with different approaches and covering different spectrums for the baldness treatment.

Yes, FUT did sin in the past: if you imagine it can be done repeatedly, as many times needed, you will end up with stacked or wide scars. In addition, the areas that suffer tension on closure can present fibrosis and thinning hairs. All this can also compromise the donor area resource. Nevertheless, most patients are good candidates for one or two large FUTs, if properly prepared and executed. Therefore, it is possible to move lots of hairs within the two FUT sessions—as many as 7,000-8,000 FUs in total. Probably after the second FUT, the laxity will be gone, increasing dramatically the risk of widening the scar or creating too much tension on a risky third session, which should be avoided.

Then, if more hair is still needed, it would be wise to harvest with FUE. Turning the coin, the same principle applies to FUE: it can be done properly twice as well—considering large sessions of 2,500-3,000 FUs each. After the second large FUE session, most of the donor capacity will be gone. On the third session, despite that it can be done, there are considerable risks, including donor area depletion. This is precisely what we are trying to avoid—donor area compromise—with any technique. For this reason, we should change approaches and move to FUT.

Performing FUT for 25 years and being proficient in FUE (by removing 3,000 FUs with a 0.85mm hybrid punch, 5% transection rate, in less than 2.5 hours), I can see the potential of combining both techniques to best meet the needs and expectations of the patient. But before the FUE messiahs

start their attacks, please hear this: today's FUT technique is not the FUT from 10 years ago. Thanks to the FUE era, the FUT surgeon's goal is to produce great results. Today, FUT is a much more refined technique having adapted and innovated to achieve consistent results. After two FUTs, leaving only a single camouflaged scar, if there is any need to improve it, usually only 200 FUs harvested by FUE can get the job done and cover the remaining scar. This is a cheap price to pay, considering the benefit of preserving the donor area quality for one or two future FUEs, expanding its limits. And don't forget the beard!

Combining FUT and FUE for prime donor area management: welcome to the new gold standard. Believe it or not, you will be back to the FUTure. ■

## HAIR LOSS DIAGNOSIS COURSE FOR THE NON-DERMATOLOGIST

# What You MUST Know If You Are Performing Hair Transplantation Surgery

### FREE VIEWING FOR ISHRS PHYSICIANS

- ▶ Over 3.5 hours of lectures and discussion
- ▶ Recorded at the ISHRS 2017 World Congress Prague
- ▶ No CME credits issued for watching this course
- ▶ Internet/online video files.

### LEARNING OBJECTIVES

Upon completion of this course you will be able to:

- ▶ Describe many hair loss disorders as well as common scalp dermatologic conditions that the hair transplant surgeon may encounter.
- ▶ Discuss the diagnosis and treatment of many non-androgenetic alopecias.
- ▶ Recognize when hair restoration surgery is indicated.

### COURSE DESCRIPTION

The course covers all aspects of hair loss diagnoses, classification, treatment, and management. An emphasis is placed on understanding the anatomy and the hair growth cycle to better understand the pathologic consequences of hair loss. The course includes an in depth review of male and female pattern hair loss as well as diagnosing and managing cicatricial forms of alopecia. Common inflammatory scalp conditions is also reviewed to insure participants have a better understanding of managing scalp disorders as well as recognizing benign and malignant scalp tumors that may arise in the consultation process. An emphasis on recognizing alopecia areata and managing hair loss in women is discussed as well as understanding PRP and its therapeutic indications.

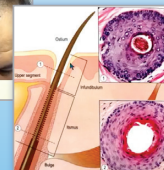
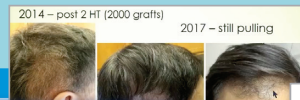
**How Does PRP Treat Hair Loss?**

Growth factors → (Wnt)/β-catenin → ERK/AKT pathway activation:

- Promotion of vascularization
- Promotion of angiogenesis
- Triggers anagen entry
- Extends anagen duration
- Inflammation/oxidative stress reduction
- Triggers hair stem cell regeneration

**Lichen Planopilaris**

- Band-like "lichenoid" inflammation at infundibulum of hair follicle and the attached sebaceous gland



| COURSE OUTLINE  | running time |
|---|--------------|
| <b>Welcome &amp; Opening Remarks</b><br>Ricardo Mejia, MD                     | 06:01        |
| <b>Hair Loss Diagnosis, Anatomy and Classification</b><br>René Rodriguez, MD  | 20:01        |
| <b>Alopecia Areata, Diagnosis and Management</b><br>Ivan S. Cohen, MD, FISHRS | 22:29        |
| <b>Cicatricial Alopecias</b><br>Nicole E. Rogers, MD, FISHRS                  | 29:08        |
| <b>Inflammatory Scalp Disorders/Lumps and Bumps</b><br>Jennifer Krejci, MD    | 24:08        |
| <b>Q&amp;A All Panelists</b>  | 13:25        |
| <b>Dermoscopy/Trichoscopy Lessons Learned</b><br>Aron Nusbaum, MD             | 20:12        |
| <b>Diagnosing Hair Loss in Women</b><br>Neil S. Sadick, MD                    | 36:01        |
| <b>Scalp Cancers</b><br>Ricardo Mejia, MD                                     | 13:55        |
| <b>PRP Basics</b><br>Neil S. Sadick, MD                                       | 24:10        |
| <b>Q&amp;A All Panelists</b>  | 11:04        |

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# Co-editors' Messages

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Our specialty has made tremendous progress over the past several years. I am impressed by the updated, dictionary-type terminology that the FUE research and terminology committees have put together. This is very important and helpful for the clear communication between surgeons, patients, and device makers, not only in clinical practice but also in studies, advertisement claims, and reports. This is certainly an article that should be accessible to anybody interested.

Last month, I attended the World Congress of Hair Research in Barcelona (<https://www.barcelonahair2019.org/>). It featured a kaleidoscope of topics including hair transplantation, alopecia diagnosis and treatment, hair care, and, of course, basic and clinical research.

The hair follicle continues to be an exciting object to study and it is a highly complex organ. The elucidation of signals that control hair formation, as described in the Hair Science column, may potentially lead to new hair growth treatments. However, it takes time to translate research into clinical applications. New promising approaches are topical androgen receptor antagonists, prostaglandin D2 receptor antagonists, cell-based follicle rejuvenation, and topical JAK inhibitors for alopecia areata. The popularity of platelet-rich plasma (PRP) is increasing as well as the topical use of finasteride and the use of low-dose oral minoxidil.

In my talk in Barcelona, I spoke about the relevance of linear excision (follicular unit transplantation [FUT]). My take-home message was that in order to act in the best interest of the patient, the hair surgeon should master both techniques (follicular unit excision [FUE] and strip-FUT) and recommend the most suitable method based on individual criteria. A combination of both techniques can yield large graft numbers while avoiding overharvesting or a wide linear scar.

At the Latin American FUE workshop in Buenos Aires, Bob True took a similar stance. In addition, in this issue's President Message, Arthur Tykocinski emphasizes that it is time to reconsider the crucial role of FUT, especially in combination with FUE.

I applaud the results of the study by Bob Haber et al. on finasteride side effects, an important piece of evidence in these times of increasing hysteria around this valuable drug.

As always, dear members, we need your input for our upcoming issues, so please send your articles for consideration to [forumeditors@ishrs.org](mailto:forumeditors@ishrs.org). ■



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We appreciate the important article by Bob Haber et al concerning finasteride and sexual dysfunction. This well-constructed study is rich with information supporting finasteride to treat androgenetic alopecia (AGA). We have been treating patients with

finasteride for 27 years; it was approved by the FDA for treating benign prostatic hyperplasia in 1992 and for AGA in 1997. It is surprising that reported sexual dysfunction was greater in the untreated control group than the finasteride treated group! Why is this? Prior to prescribing finasteride, I always ask if patients have existing sexual dysfunction for any reason and find the incidence is low, certainly lower than the control group in this study. I would hypothesize our patients are healthier than the general population, especially our older patients. Testosterone decreases not just due to aging but due to concomitant diseases often seen with aging. These diseases aren't as common in our patients.

Arthur Tykocinski gives a very accurate assessment of the state of our specialty. I couldn't agree more. The days of pitting FUT against FUE should be over. Marcelo Gandelman first described excising a single 8-10mm-wide strip in the *Forum* in 1991 (Vol. 1, No. 6). In the succeeding 28 years, the procedure has been refined, and much has been learned to make FUT scars extremely narrow, with hair growth in the scar (trichophytic closure). Plus, FUE grafting and pigmentation now exist to make wide scars less visible. But due to the less technical, less "surgical" FUE, the pendulum has swung away from FUT. It takes a larger staff, microscopes, and greater surgical skill and experience to perform FUT well. It's not easy to get an imperceptible scar with hair growing in it, but the responsibility of being a surgeon is to know how to perform surgery. There are absolute and relative indications and contraindications for FUE and FUT. These need to be identified, documented, and taught. The FUE Advancement Committee (FUEAC) could do this for FUE and FUT. Live surgery workshops should concentrate on FUT also. It is imperative that modern hair transplanters be proficient performing FUT and FUE. If two topics are to dominate our discussions and literature, it should be the donor and recipient areas, not just FUE and FUT.

Congratulations to the FUEAC, James Harris, and Bob True for their updated and important terminology reference article. This and other articles will soon be at the fingertips of all ISHRS members via the new, upcoming Forum ePub website, which will have current and past *Forum* issues in an easily assessable format. It is an immense improvement over the currently available Forum information and is the result of the hard work of Victoria Ceh, Bob True, and the ISHRS support staff. It will make researching Forum content much easier for all of us.

If you have a presentation planned for the Bangkok meeting, consider submitting an article on your topic to the *Forum* for publication prior to the meeting. There are two more issues prior to the Bangkok meeting. It's difficult to remember every 7- to 10-minute lecture. An article in the *Forum* will help expose your topic to a larger audience. ■