Virginity and Hymen Testing: No Factual, Scientific, or Medical Basis

This forensic brief examines the validity of the use of hymen examinations to determine a woman’s “virginity.” It does not discuss the need for comprehensive gynecological examinations within the context of forensic medical examination of sexual assault, as both the imperative for such exams and standards for their conduct are well established and defined in internationally accepted guidelines.

Numerous medical studies undertaken in recent decades across multiple countries have demonstrated that there is no factual, scientific, or medical basis for using hymen size, morphology, or integrity to determine whether a woman has experienced vaginal penetration, and therefore the state of her “virginity.” Moreover, evaluations to examine the hymen are often undertaken without the consent of the woman or in a context of duress or threat of force. Such examinations can be psychologically and – in some instances – physically harmful to women and girls. Given that these examinations are medically unnecessary, it is unethical for physicians or health professionals to perform them.

The Hymen – An Assumed Indicator of Virginity

In cultures in which female virginity before marriage is prized, commonly assumed indicators of virginity are an “intact” hymen and blood on the sheets of the marital bed at first intercourse as a result of the hymen being “broken.” Multiple medical and scientific studies have refuted these assumptions and demonstrated that there is no evidence to support these beliefs.

Anatomy of the Hymen

The hymen is a vestigial membrane that embryologically separates the upper 2/3 of the vagina from the lower 1/3 during fetal female development. By the time of birth, the hymen opens and moves toward the exterior female genitalia in most female infants. The hymenal tissue typically reduces at birth to a residue of just a few millimeters, and its configuration varies in shape, size, and flexibility in children, changing throughout a woman’s life. Usually, the hymen in young girls has an opening sufficient to allow for menstruation, the size of which can vary considerably. Hymens vary in size and shape from several millimeters to several centimeters depending on age, Tanner stage of sexual development, and hormonal status. In adulthood, hymens take on a wide range of shapes and sizes.

In addition to size and shape, the hymen may have a number of distinguishing features, such as polyps, ridges, bands, and notches. Because of the wide range of variations in hymenal morphology, it is imperative that those performing forensic gynecological examinations be aware not only of the breadth of its physical characteristics, but also the consequent limits of what a physical examination may, or may not, indicate.

Bleeding

The hymen is a membrane with relatively few blood vessels that – even if torn – may not bleed significantly. Forced penetration and lack of lubrication may cause lacerations to the vaginal wall, both of which are most likely to be responsible for the “blood-stained bed sheets,” rather than trauma to the hymen.
Bleeding is not routinely observed after a woman’s first sexual intercourse. An early study of women’s first experiences of intercourse conducted in 1978 found that 44 percent of 100 women surveyed reported no bleeding upon first intercourse, with another 35 percent reporting only slight bleeding. A Dutch study—published in 2008—of 487 women from different cultural backgrounds found that 40 percent of women did not bleed the first time they engaged in sexual intercourse. In a 1998 survey study, a British physician found that 63 percent of 41 female physician colleagues did not bleed on first intercourse. Medical literature attributes vaginal bleeding following intercourse on the wedding night to many potential factors, including forced penetration, lack of lubrication, and infection.

“Breaking” the Hymen

In prepubertal girls, the hymen and vagina are smaller and less elastic than in adolescent and adult women, and consequently trauma due to penetration is more likely to be evident and more characteristic. In postpubertal women, the hymen may stretch, allowing vaginal penetration with minimal injury. Only a small portion of these women will exhibit changes in the hymen diagnostic of penetrating trauma. In a 2004 study of 36 pregnant adolescent girls, medical staff were only able to make definitive findings of hymen penetration in two cases. One study comparing hymenal morphology in adolescent girls with and without a history of consensual sexual intercourse found that those who admitted to having prior intercourse, in fact, had nondisrupted, intact hymens in 52 percent of cases.

Studies of sexual assault survivors also provide evidence that the hymen may not break or incur noticeable damage as a result of forced penetration. A study published in 2001 found that only 19 percent of victims between the ages of 14 and 19 years—who identified as not having had prior sexual intercourse before the alleged sexual assault—had acute hymenal tears. Another study from 1998 involving a greater range of ages of women alleging sexual assault found that only 9.1 percent had hymenal perforation afterward. The authors of this study concluded that a substantial proportion of women, regardless of prior sexual experience, will not have visible genital injuries following forced vaginal penetration. It should be noted that this forensic brief is concerned with the utility of hymen testing in determining whether a woman has had previous sexual intercourse. Where sexual assault or abuse is alleged, a full forensic examination of the woman is imperative.

The hymen tends to heal naturally without evidence of injury within a matter of days. Even for an experienced physician, it may be extremely difficult to differentiate between a healed, partial hymenal tear and a naturally occurring superficial notch. In most cases, there is no correlation between a hymen’s appearance and the actual history of prior sexual intercourse.

Similarly, where the integrity of the hymen has been compromised, this can be attributed to causes other than sexual intercourse, including the insertion of objects, penetrating accidental trauma, and surgical procedures.

The notion that the presence of an irregularly shaped hymen is indicative of vaginal penetration is incorrect. Equally misleading is the belief that the presence of an intact hymen is indicative of a lack of sexual
intercourse. Finally, given that hymen examinations do not lead to a determination of whether the hymen or vagina was penetrated by a penis or other object, they have no diagnostic or forensic value.23

Ethical Considerations
As widely demonstrated in and accepted by the health care community, there is no medical or scientific evidence to support hymen examinations in determining a woman’s history of vaginal penetration. These examinations are of serious medical and human rights concern in cases where they are conducted against a woman’s will, as is often the case.

Forced hymen examinations are a form of inhuman, cruel, or degrading treatment prohibited by the Universal Declaration of Human Rights (UDHR), the International Covenant on Civil and Political Rights (ICCPR), and the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (CAT).24 Depending upon the circumstances in which they are carried out, forced hymen examinations for the purpose of determining “virginity” may also amount to a form of torture.25 The UN Special Rapporteur has recognized virginity testing as a form of gender-specific torture.26 In the case of *Salmanoğlu and Polattas v. Turkey*,27 the European Court of Human Rights held that the carrying out of virginity tests upon two young women in detention constituted severe ill-treatment in breach of the prohibition on torture and inhuman or degrading treatment or punishment contained in the European Convention on Human Rights.

Furthermore, such forced examinations – under certain circumstances – have been found to not only constitute torture, but also rape. In the case of *Miguel Castro-Castro Prison v. Peru*,28 the Inter-American Court of Human Rights held that the act of submitting a female detainee to a vaginal finger “inspection,” carried out by a number of individuals at a police hospital, “constituted sexual rape that due to its effects constituted torture” in violation of the right to humane treatment provided in the American Convention on Human Rights and in violation of the Inter-American Convention to Prevent and Punish Torture.29

Subjecting women to forced virginity examinations breaches the non-discrimination provisions of the ICCPR,30 the International Covenant on Economic, Social and Cultural Rights,31 Convention on the Elimination of All Forms of Discrimination against Women,32 and the UDHR.33 The UN Special Rapporteur on violence against women, its causes and consequences recently recognized virginity testing as a “grave violation” of the right to privacy provided for in the ICCPR34 and the UDHR,35 and has stated that it “undermines the ability of women to be recognized as full and equal citizens of their communities.”36

Conclusion
The examination of the hymen for purposes of determining a woman’s “virginity” has no clinical or scientific value. The use of such examinations within any context attempting to determine a woman’s sexual status is in violation of basic medical and legal standards as outlined in this brief. Consequently, health professionals requested to perform hymen examinations for purposes of determining a woman’s “virginity” should refuse to do so.


4 A scale used by doctors to evaluate the progression of pubertal changes.


7 Ibid.


23 International Rehabilitation Council for Torture Victims, “IFEG: Forcibly Conducting Virginity Testing is a Human Rights Violation and May Constitute Torture.”
25 UDHR, Art 5; ICCPR, Art 7; CAT, Art 1.
29 Ibid, par. 197(50), 309, 312.
30 ICCPR, Art. 2(1), 3, 26.
33 CEDAW, Art 2.
34 CEDAW, Art 17.
35 CEDAW, Art 12.