

The most common birth injury that no one talks about

Perineal tears in Denmark – largely impacting women’s quality of life

Perineal tears remain the most prevalent maternal obstetric complication associated with vaginal birth [0] – occurring in roughly eight out of ten vaginal births (~79%) in Denmark, with severe obstetric anal sphincter injuries (OASIS) in ~3% overall and 5.4% among first births [1]. From these tears, women live with pain, sexual dysfunction, incontinence, anxiety and more – highly impacting their quality of life [2] [3] [4]. Current efforts, such as manual protection through handgrip techniques, warm compresses, and even the introduction of two midwives during delivery show promise, but impact remains uneven and difficult to scale. Follow-up care is inconsistent, and second-degree tears, despite being the most common, are still often overlooked.

This white paper argues for a prevention-first, evidence-tight, woman centered need for solutions – so the marker of a “successful” birth is health for both mother and child.

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Why this white paper?

Women today live longer than men, yet they spend much more of their lives in poor health. Which is what we call the gender health gap. One major contributor is childbirth and its lasting consequences. It is estimated that 1 in 3 women live with lasting consequences after childbirth [5]. This white paper shines a light on perineal tears, that are the most common complication during labor. These injuries can lead to reduced quality of life – outcomes not often talked about, as women accept them as a "natural" part of birth.

This white paper is written to raise awareness and bring attention to one of the most common maternal health challenges that nearly every woman who gives birth vaginally will experience to some degree, and many will continue to feel the consequences long after birth. As Jane Goodall said: "Only if we understand can we care, only if we care we can help."

“1 in 3 women suffer from long-term consequences after childbirth.” [5]

This white paper is written by oasicare, based on existing literature on perineal tears, their management, and associated consequences. To complement this evidence base, we have also integrated insights from our own collaborations with midwives in Denmark, thereby providing a more comprehensive perspective on a field that remains comparatively under-researched.

What are perineal tears?

Perineal tears are the most common birth injuries during vaginal delivery, yet many people remain unaware of what they are – or what they mean for the women who experience them. In the following pages, we explore what they are, their impact and causes.

Perineal tears

A tear occurs when the tissue between the vagina and anus stretches and ruptures during birth. Depending on severity, this can involve only the skin, extend into the perineal muscles (most common), or, in the most severe cases, affect the anal sphincter and rectovaginal fascia [6]. Because of their frequency and potential impact on a mother's recovery, daily life, and long-term health, perineal tears are a central focus of maternity care in Denmark and a large concern for becoming mothers.

The most common and growing birth injury

In Denmark, 78.3 % of all vaginal births in 2024 involved a tear, most often second-degree tears (42%), while about 3% of vaginal births lead to severe injuries affecting the anal sphincter [7]. However, as first-time mothers are more likely to suffer perineal tears [8], the percentage of women who have suffered a perineal tear is even higher than that.

Unfortunately, irrespective of being a large focus of midwives in Denmark, the rate of tears are trending upwards in the last decade [9]. Perineal tears are as such not only an incredibly widespread issue, but also a growing one in the Danish healthcare system.

Not only the severe one's matter

Typically, the most attention has been given to severe perineal tears – 3rd - and 4th -degree – since these are well-documented in the literature and clinical practice as being associated with the most serious complications. In recent years, however, growing research has shown that second-degree tears also have a substantial impact on women's quality of life after childbirth [10]. As these tears are far more common, it is crucial to recognize their role. Therefore, this white paper does not focus only on severe tears, as has traditionally been the case in this field, but emphasizes that all degrees of tearing deserve attention to ultimately improve women's quality of care and life.

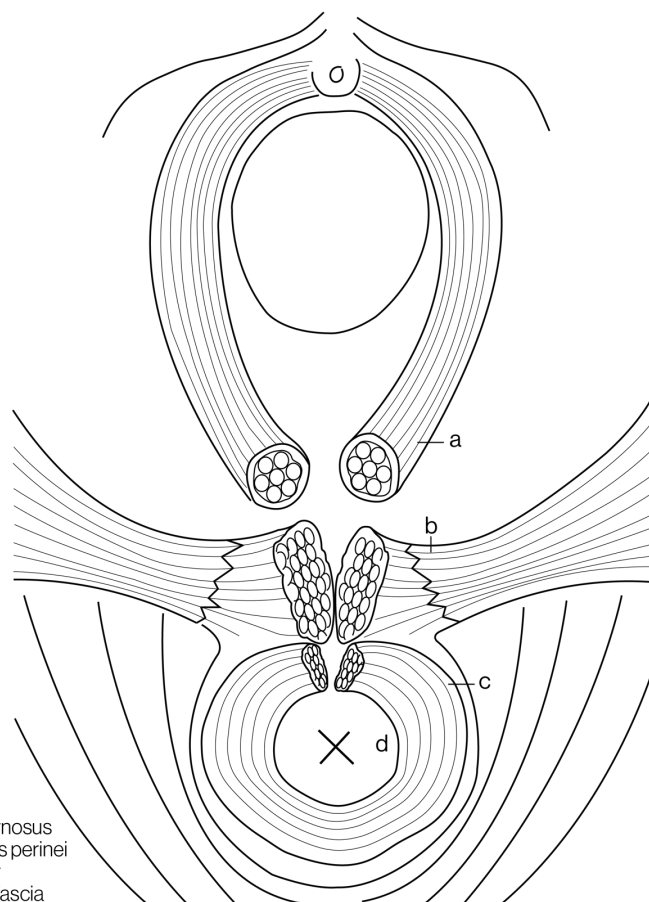
Definition & classification of tear degrees: Denmark follows the internationally accepted four-degree scale (1°–4°): from skin only lacerations to complete sphincter and rectovaginal fascia disruption [11] [12].

1st degree – injury limited to the vaginal epithelium and/or perineal skin.

2nd degree – extends into the perineal muscles (e.g. m. bulbocavernosus and m. transversus perinei).

3rd degree – involves the external anal sphincter (EAS), either partially (3A: <50%, 3B: >50%) or completely, and may also involve the internal anal sphincter (3C).

4th degree – extends through the external and internal anal sphincter into the rectovaginal fascia.

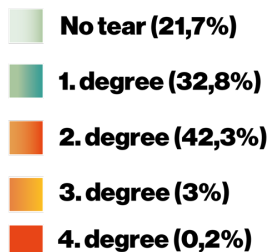


a: m. Bulbocavernosus
b: m. Transversus perinei
c: Anal sphincter
d: Rectovaginal fascia

Who is at risk for a tear?

+85 % of women that have given one or more vaginal births have suffered from perineal tears [13]. With such a high prevalence, nearly every mother is at risk of sustaining a tear. However, certain factors place some births at higher risk of tearing. This section of the white paper outlines those risk factors.

All vaginal births



[14]



Labor and birth circumstances

- A long second stage of labor (pushing phase) and prolonged active labor increases tissue stress. Thus, increasing the chance of perineal tears. [15]
- Instrumental deliveries (vacuum or forceps) are among the strongest risk factors — severe tears occur much more frequently in these cases, impacting almost 12% of first-time instrumental births. [16]
- Episiotomies have been shown, to some extent, to prevent severe tears; however, they always result in at least a second-degree tear, and their preventive value remains debated among clinicians [17].
- Rapid expulsive births can increase risk of tearing as the tissue does not have time to stretch gradually. [18]
- While epidural use is not directly linked to a higher incidence of perineal tears, it is associated with an increased likelihood of instrumental delivery—which in turn significantly raises the risk of tearing [19].]
- Mothers who give vaginal birth after a C-section (VBAC) are at higher risk of perineal tears. [20]

Mother-related factors

- First-time mothers are at greater risk compared to women who have previously given birth. [21]
- Previous severe tear (3rd/4th degree) increases the risk of a repeated severe tear in a subsequent vaginal birth. [22]
- Short perineal body is associated with higher risk of severe tears [23].

Baby size and position

- Higher birth weight and larger head circumference increase the chance of tearing. [24]
- Babies in occiput posterior position or shoulder dystocia situations can put extra strain on the perineum. [25]

Standard of care in Denmark for tear prevention

In Denmark, the prevention of perineal tears is primarily carried out through midwifery techniques during the final stage of birth. While several approaches are used, there is no single national standard, and practices vary between hospitals – and even from one midwife to another. The following are the most common methods currently applied in Danish maternity wards.

Manual perineal protection

Midwives are trained to use their hands to support the perineum during the pushing stage. When applied consistently, this technique can reduce the risk of severe tears. However, both use and technique differ across hospitals and regions [26][27].

Warm compresses and perineal massage

Applying warm compression or gentle massage to the perineum is often used to increase comfort and improve elasticity. Evidence suggests a possible benefit, but it remains limited. In practice, these methods are applied inconsistently and are not standardized across Danish hospitals [28][29].

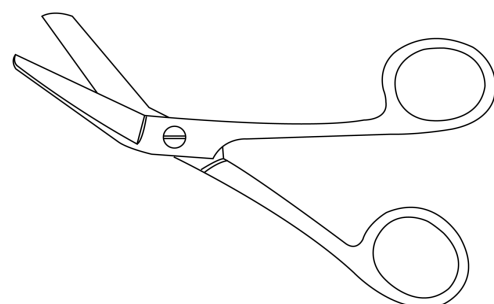
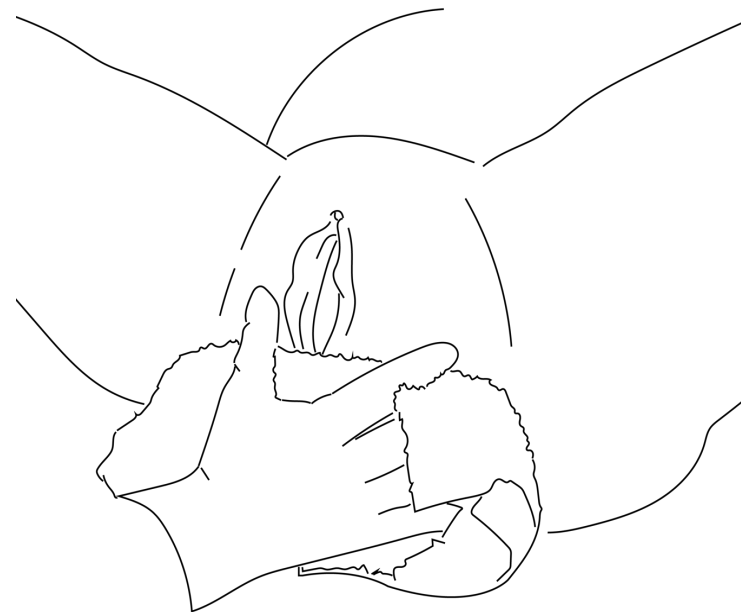
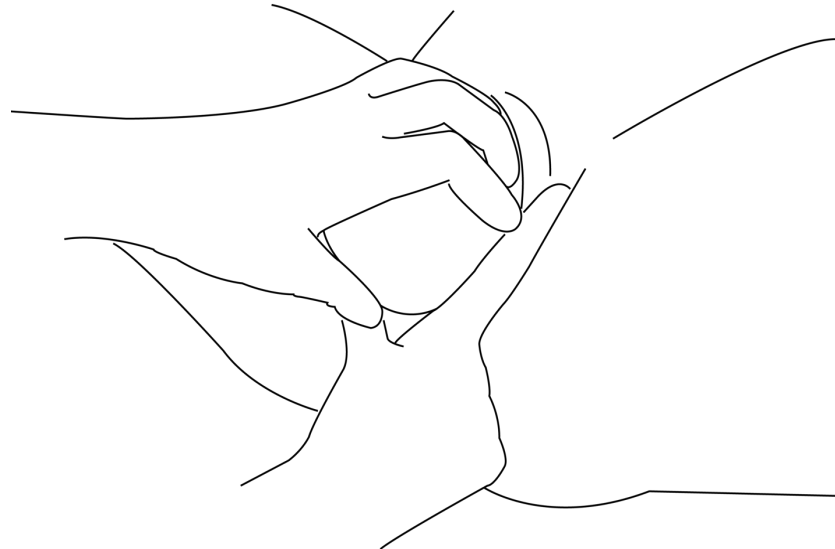
Episiotomy

A restrictive mediolateral episiotomy is sometimes performed—primarily during instrumental births—to reduce the risk of severe sphincter injury [30][31]. Routine use is not recommended, and episiotomy rates in Denmark remain very low. While protective in certain scenarios, unnecessary episiotomies are associated with slower healing and greater postpartum pain [32][33].

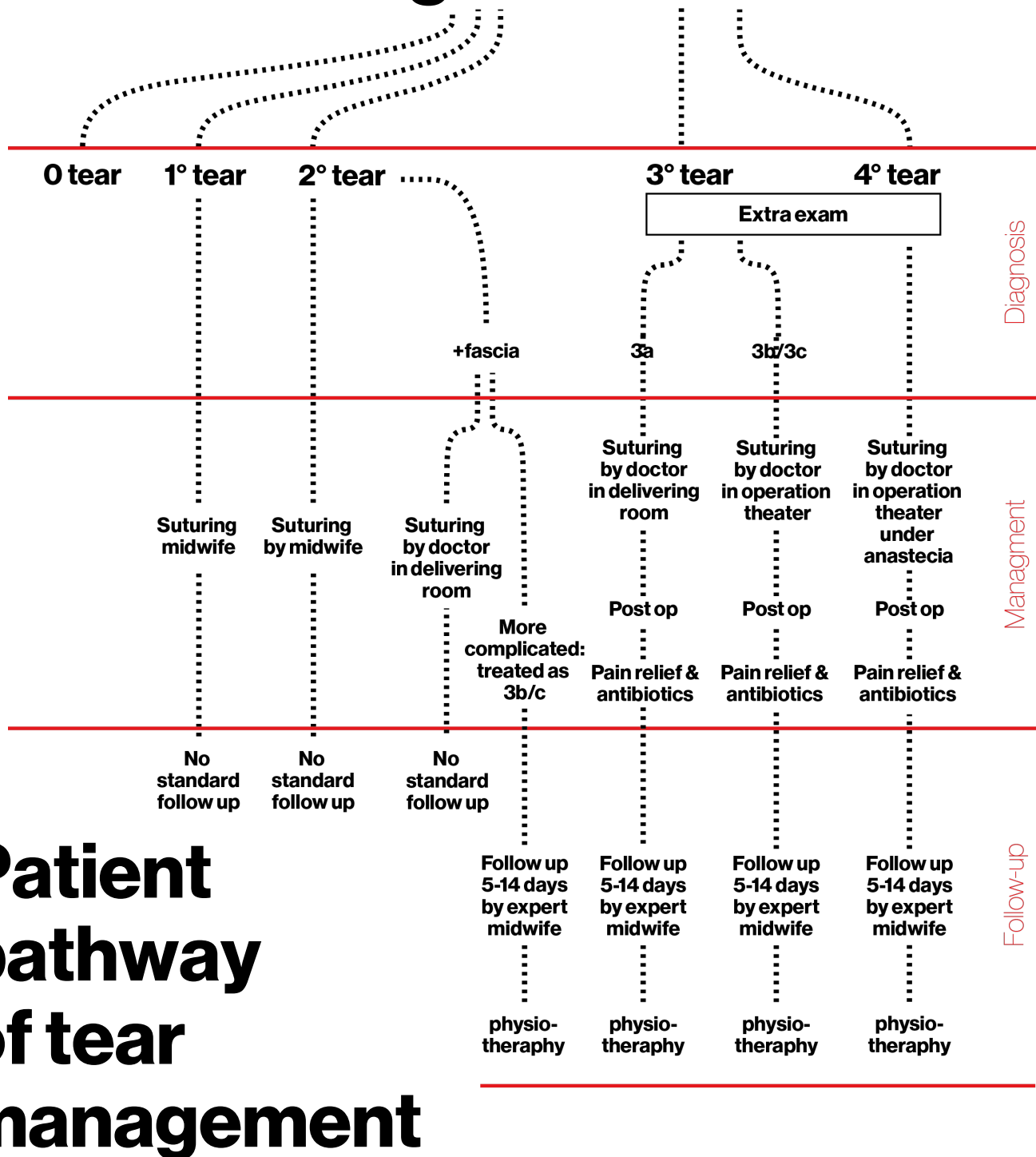
Guiding and speed

Although less researched, many Danish midwives emphasize the importance of guiding the mother during pushing. This includes supporting breathing and pushing techniques, as well as coaching when to push and when to pause—an approach seen by many as part of perineal protection [34].

In practice, Danish midwives apply a range of techniques to protect the perineum, but these are not standardized and often reflect individual preference and training. This variation is understandable, as there is currently no single, conclusively proven method to prevent perineal tears—a finding also confirmed by the Cochrane Library in 2024 [35]. As a result, midwifery practice continues to rely on professional judgment and experience rather than on a universally agreed standard of care. However, the reality remains that around 78% of vaginal births in Denmark still suffer from perineal tears.



Vaginal birth



Patient pathway of tear management

After vaginal birth, most perineal tears are assessed and repaired immediately in the delivery room. First-degree tears may be left un-sutured, while second-degree tears—the most common—are usually closed with a continuous technique by the midwives [36]. Severe (3°/4°) tears are transferred to the operating theatre for layered repair by an obstetrician under anesthesia and receive structured follow-up [37].

Critical points in the pathway:

- Second-degree tears (~42% of births) rarely receive routine follow-up, despite high rates of pain, wound complications, dyspareunia, and incontinence [38].
- Repairs in the delivery room favor maternal-infant bonding and workflow efficiency, but compromise lighting, sterility, anesthesia, and tissue assessment—factors critical for optimal repair and thus healing [39].
- The quality of the suturing by midwives is very dependent on seniority, as their practice is mostly learning by doing. [40]
- Only severe tears trigger a systematic pathway [41], while the majority of women with less “serious” injuries experience long-term complications largely unmanaged.

Why should we care?

Perineal tears' impact on women and their quality of life.

Understanding what perineal tears are is only the first step; equally important is recognizing what they mean for the women who experience them. A tear is not only an injury at the moment of birth; it is something that can shape a woman's recovery, her sense of well-being, and even her long-term health. For many, it marks the start of unexpected struggles that reach far beyond the delivery room.

Short-term consequences

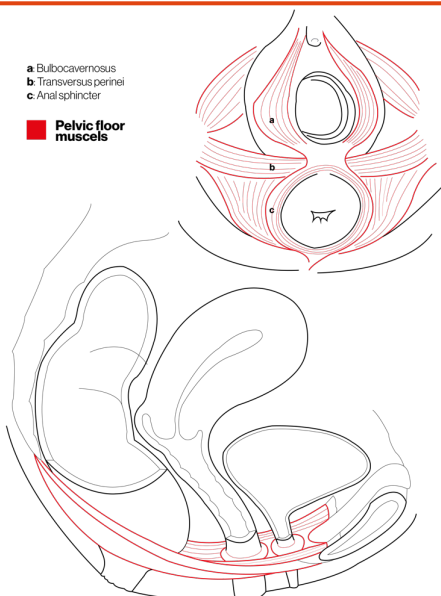
- **Immediate surgical repair:** Tears most often require suturing of vaginal and perineal tissue, adding unexpected pain and stress for the mother. Many women report not being fully informed beforehand, and even small tears can take around an hour to repair. [42]
- **Persistent pain:** Perineal pain lasting up to three months is common, with deeper tears leading to stronger, more constant discomfort. Pain interferes with sitting, walking, and even holding the newborn. [43]
- **Dependence on pain relief:** Many women require prescription analgesics after perineal tears, prolonging recovery and impacting daily life. [44]
- **Postpartum bleeding:** Tears increase the risk of hemorrhage, which often requires acute intervention. This not only prolongs recovery but can itself lead to additional complications. [45]
- **Psychological distress:** Anxiety, stress, and trauma symptoms can be caused by perineal trauma, overshadowing what should be a time of joy and bonding. [46]

Long-term consequences

- **Sexual health:** Dyspareunia (pain during or after intercourse) can persist for months or years, straining intimacy and relationships. Perineal tears may also cause other forms of long-term sexual dysfunction. [47]
- **Urinary incontinence:** Tears involving muscle increase the risk of incontinence, often forcing lifestyle changes in exercise, work, and social life. For many women, this is accompanied by shame during the prime years of their lives. [48]
- **Anal incontinence:** Third- and fourth-degree tears can damage the anal sphincter, leaving some women unable to fully control bowel movements—one of the most stigmatizing and isolating consequences of perineal trauma. [49]
- **Pelvic floor dysfunction:** Tearing can weaken or damage the pelvic "sling," resulting in heaviness, pain, or overactivity. [50]
- **Pelvic organ prolapse:** Damage to the pelvic floor and anal sphincter increases the likelihood of prolapse, where organs descend from their natural position. This brings discomfort and significant limitations to everyday activities such as moving, exercising, and working. [51]
- **Mental health impacts:** The likelihood of depression, anxiety, and post-traumatic stress are shown to be increased by severe perineal tears, profoundly affecting not only the transition into parenthood but also long-term quality of life. [52]

a. Bulbocavernosus
b. Transversus perinei
c. Anal sphincter

Pelvic floor muscles



Infobox

The female pelvic floor is a complex system of muscles that supports the bladder, uterus, and bowel. It is essential for continence, sexual function, core stability, and overall wellbeing. When these muscles are damaged during childbirth, women can experience pain, incontinence, prolapse, and reduced quality of life. Protecting the pelvic floor is therefore not only about physical recovery, but also about safeguarding dignity, confidence, and long-term health. [53]

Impact on the connection between baby and mother and baby's health.

Perineal tears can disrupt one of the most important moments after birth: the first closeness between mother and child. Pain, stress, and physical complications can interfere with the hormonal balance, calm, and confidence that make bonding and breastfeeding possible.

Disrupted physiology

- Pain and trauma activate stress hormones that suppress oxytocin and prolactin, delaying milk let-down and making early breastfeeding more difficult. [54]
- If suturing and time spent in the operating theatre delay opportunities for early initiation of breastfeeding, it can impact the success of the onset of lactation [55] or impact breastfeeding interaction and initiation by interrupting skin-to-skin contact between mother and baby [56]

Emotional strain

- Persistent pain and trauma symptoms increase the risk of postnatal depression, anxiety, and post-traumatic stress, reducing maternal confidence and sensitivity in caregiving. [57]
- Mothers experiencing significant physical or emotional distress are more likely to stop breastfeeding early, missing out on its protective benefits for both mother and child. [58]

Bonding and parenting stress

- Breastfeeding is a powerful biological stress buffer, calming both mother and infant. When interfered with, this effect is weakened, leaving mothers and babies more vulnerable to irritability, stress, and reduced bonding. [59]
- Perineal tears have been shown to be linked to higher parenting stress in the post-partum period, by increasing depressive symptoms in mothers. [60]



Infobox

Traditionally, 3rd- and 4th-degree tears have been seen as the most severe, with the greatest long-term consequences. But growing evidence shows that 2nd-degree tears — affecting ~42% of births — also carry significant risk for complications. [61]

- In Sweden, new sub-classifications (2A–2D) of tear 2 highlight that depth and extent matter for outcomes, repair, and follow-up. [62]
- Second-degree tears share many of the same short- and long-term consequences as severe tears. Although the consequences are generally less extensive, these tears occur much more frequently. [63] [64]

Despite this, women with 2nd-degree tears receive less follow-up and support than those with 3rd- and 4th-degree tears. [see page 6] This means the largest group of mothers is also the least well cared for.

Impact on a broader scale.

While the mother should always remain at the center when talking about consequences from perineal tears, it also carries wider effects. They affect families, strain healthcare systems, and limit women's ability to participate fully in society.

Family

Pain, incontinence, and sexual dysfunction do not only impact the woman herself—they also affect partner, her relationship, and the energy parents have for bonding and caregiving. Women's especially mental health after perineal tears have a link to parental stress in the new family. [65]

Midwives & Hospitals

Midwives—who are not surgeons—carry the responsibility of repairing muscle and preserving function after a tear 1 or 2 [66]. Much of this skill is acquired through learning by doing, and access to training varies across the country [67]. As a result, outcomes differ between hospitals, placing both professional and emotional pressure on midwives who want to give women the best possible care but are often left without the right support or enough time.

For hospitals that are already stretched for resources, suturing consumes valuable time that midwives would prefer to spend on postpartum care for mother and baby. Moreover, the suturing takes significant resources due to its high occurrence from hospitals [68]. From a broader healthcare perspective, the complications that follow perineal tears often require further attention elsewhere in the system, adding to the cumulative burden. A study in the UK estimated that follow-up care for a third- or fourth-degree tear can cost around 709,000 DKK per patient [69]. While the economic impact of first- and second-degree tears has not been quantified, these injuries also lead to long-term complications that contribute to healthcare costs.

Economy

From a hospital perspective, preventing tears could yield both economic and resource benefits. On a wider scale, closing the women's health gap, including maternal conditions such as perineal tears, could unlock an estimated US \$1 trillion in annual economic growth by 2040 [70]. As many women in midlife spend their life in poor health, this limits their participation in the workforce and other aspects of society that contribute to economic growth [71]. Investing in prevention and recovery therefore not only improves women's quality of life but also strengthens the overall economy.

Listen to Mothers: What They Tell Us

For mothers, perineal tears are not just a medical outcome but a deeply personal experience. Women who have gone through them describe pain, vulnerability, and long-lasting effects — both physical and emotional. Those preparing to give birth often carry fears of tearing. Their experiences remind us that preventing and caring for perineal tears is not only a clinical matter, but a fundamental part of supporting women's well-being in childbirth.

"I had a tear 2, it took 2 hours to stitch it together, even as a "small tear". The healing process was very long, and I only felt somewhat "normal" after 8 weeks"

"I had a second degree tear, after 12 days I still had huge pain and they realized that they had "forgotten" to sew one muscle back in place. I would do anything to not tear a second time."

"After my second birth I had a student midwife stitch me up, she was very insecure, and I could hear her ask where she should put me together"

"The worst part of the whole birth was to get sutured afterwards"

"I didn't prepare myself for reducing perineal tears, I saw it more as a "requirement" [to get a tear] from me to give birth."

"I gave birth 5 years ago and got a tear 3, I still have means from it today and for future births I will go for a C-section"

"Both of my times I prepared myself for that it's just a part of the package (the birth)"

- mothers in Denmark

100% of asked mothers knew about perineal tears.

90% wish that they could have done something more to reduce the likelihood of tearing.

>78% of mothers giving vaginal birth will suffer from a tear during childbirth ^[14].

All findings and statements on this page are based on Oasicare's 2022 field study with Danish mothers (unpublished data) if not otherwise stated.

Efforts are being made but the impact lags

So far we have discussed that perineal tears are a huge burden on women, society and healthcare. And, we know that midwives and mothers care about improving this. So why is it not moving towards a better solution? We do actually see a big effort in new practices to improve this, however, impact is still lacking, why?

Initiatives that we are seeing being implemented for improving the outcomes of perineal tears:

- Prenatal classes teaching breathing, relaxation, and perineal massage [72].
- While hand grips are typically standard of care in Denmark, new handgrip techniques are being introduced that may protect the perineum better [73].
- A study conducted in Sweden showed that including two midwives during delivery significantly reduced the likelihood of perineal tears. Some Danish hospitals are now trying to adopt this practice [74].
- More rigorous follow-up pathways are also being tested in hospitals around Denmark. For example, the assignment of an OASI clinic or extended follow-up for second-degree tears is being implemented in the hope of reducing long-term complications. [75] [76]

These are important steps, but they have not yet translated into widespread change in outcomes.

The limited impact may be explained by the fact that many of these initiatives are incremental innovations, building on practices already in place and therefore offering only modest additional benefit. Some interventions also face practical barriers within the current structure of maternity care. For example, ensuring two midwives are present at every birth or rolling out high-quality prenatal classes nationwide—programs that could strengthen the mother–midwife connection and support perineal protection—are difficult to implement at scale. Today, most such classes remain outside the public healthcare system.

A further challenge lies in the nature of midwifery itself. Care is often highly individual, shaped by each midwife's judgment and each birth's unique circumstances. While this flexibility is a strength, it makes it harder to generate consistent evidence and to standardize practices across hospitals. The absence of such standardization can, in turn, limit the ability to implement new techniques broadly and consistently, reducing their overall effectiveness.



Infobox:

The struggle between natural and medicalized birth

Childbirth has in modern times existed in tension between the “natural” and the “medical.” [77] In midwifery, this balance is especially visible: midwives work with hands, intuition, and craft as much as with clinical protocols. Their practice is rooted in presence, touch, and situational judgment. [78] This makes midwifery unique within the healthcare system. Unlike most clinical fields, midwifery is shaped by tradition, tacit knowledge, and cultural expectations of “natural birth.” [77] Any innovation aiming to support midwives must therefore adapt to this context.

Listen to Clinicians: We need less tears

*"It's not rare that we are in a very pressured situation in the pushing phase, where we must both protect the perineum, support the woman, document, and afterwards maybe suture complicated tears." - **Midwife Denmark***

*"The more we learn about perineal tears, the more I want to ensure that everyone who experiences them receives the treatment they need. I think we're now advocating for more of these tears to be sutured in the operating theater." - **Midwife Denmark***

*"The things that mothers always bring up that they are scared of about births are (1) getting a tear and (2) their baby dying." - **Midwife Denmark***

*"The suturing is what I am most nervous about when in a birth..." - **Midwife Denmark***

*"We know who is at higher risk [for tearing], and we try to be extra attentive there... but we can never fully predict it." - **Midwife Denmark***



How do we move forward? Prevention must lead

So, what should be done to address this issue? From what we have learned—and from what has been outlined in this white paper—we see several elements that must guide the way forward:

Put women at the center of care.

Historically, women have often been excluded from research, leaving their needs underrepresented. New solutions must be designed with women's experiences, bodies, and long-term quality of life at the core.

Understand the context of birth.

Childbirth is unlike most areas of healthcare: the mother is not a sick patient, and each birth is unique. Midwifery itself is both a culture and a craft, shaped by individual situations. Solutions must respect this complexity while offering meaningful support.

Acknowledge the limits of the system.

Feasibility must be built into innovation. Any effective solution must take into account the realities of maternity wards—limited time, stretched resources, and the need for practical, scalable interventions.

Address all degrees of tears.

Severe tears have traditionally been in focus, but emerging evidence shows that even less severe tears can cause lasting harm to women's quality of life. Current care and follow-up pathways do not yet reflect this reality.

Prevention must take priority.

While good management and suturing techniques are vital for recovery, too many women still suffer long-term consequences. With resources already stretched, we cannot rely on treatment alone. Prevention must be at the heart of any effective solution.

Conclusion

This white paper set out to shed light on one of the most common birth injuries that too often goes unspoken about—perineal tears. We have explored how these injuries affect women, how prevention and care are managed in Denmark, and where current gaps remain. Perineal tears continue to be a frequent, yet under-recognized, complication of vaginal birth, with significant implications for women's health and healthcare systems.

In Denmark, midwives play a central role in both prevention and repair, but the responsibility largely rests on their shoulders. Despite their efforts, limited focus, training, and available tools have left perineal tears as a persistent challenge with lasting consequences for many women after birth.

As this white paper has shown, prevention must be a priority. Improving outcomes requires solutions that place women at the center, acknowledge the complexity of midwifery practice, and fit within the realities of modern maternity care. Strengthening childbirth outcomes is not only essential for women's health, but also for their long-term quality of life.

Authors & references

About oasicare

Oasicare is a Copenhagen-based medical device company dedicated to improving women's quality of care and life. We are developing an innovative device to reduce the risk of perineal tears during childbirth, in close collaboration with midwives across Denmark.

We wrote this white paper because awareness of perineal tears—their prevalence, impact, and treatment—remains limited. Despite being one of the most common complications of vaginal birth, they are often underemphasized in healthcare systems and overlooked in public discussion. By sharing knowledge, we aim to help raise awareness and contribute to the change women deserve.

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