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Guide to Preventing Leaks

Absorbency isn't everything.

One of the most common complaints we hear at Healthwick is about the absorbency of products. People who wear incontinence underwear or briefs with tabs often call us looking for a more absorbent product to prevent nighttime or daytime leaks.

While a product does have to have an absorbency sufficient to encapsulate the fluid output of the wearer, other factors are more often the cause of night-time leaks.

Why don't manufacturers use a standard absorbency rating system?

Manufacturers know that absorbency is only one of the factors that indicate a high quality, leak-proof incontinence product... and not even the most important for most people.

While some products, like the Tranquility All-Through-The Night Brief, clearly indicate their absorbency in mL, most manufacturers are hesitant to quantify the absorbency in terms of fluid retention.

Instead, most manufacturers prefer to indicate the relative absorbency of a product in the form of a scale, represented by numbers or visual indicators.

For example, TENA commonly uses dots or water droplets on a scale of 1 to 5.

The Danish brand Abena uses numbers, with a scale of 1 to 4 for their briefs and underwear, and a scale of 0 to 11 for their pads.

With such a wide variation in absorbency ratings, it's not surprising consumers get confused! But other factors are just as important in choosing an adult brief that won't leak, including:

- Sizing
- Product Materials
- Product Design



Sizing

The most overlooked element to prevent leaks is simply sizing. A product which is too loose will gap at the legs or waist, leading to leaks at the sides or back.

People often opt for a size larger than is appropriate for two reasons:

1) They believe a larger size has more absorbency. The amount of super absorbent polymer (SAP) and wood pulp filling (fluff) that a product contains is not determined by the sizing but by the manufacturers specifications. A larger brief is not more absorbent than a smaller brief.

2) They believe a looser fit is more comfortable. Brief wearers, particularly men who are used to wearing boxer style underwear, may believe that a looser fitting adult brief or underwear is more comfortable. In fact, a looser fit increases the likelihood of the product shifting uncomfortably, or chafing due to friction and movement, contributing to skin breakdown. A brief which is fitted close to the body is more comfortable and better for skin health.

Helpful Tip: To ensure you have the right size, measure at your natural waist (generally in line with your belly button) and your hips at the widest part. The tape measure should be comfortably taut without indenting the skin. Use the larger of these two measurements to determine your true size.

Product Materials

Today's incontinence products are vastly different from the simple cloth diapers of old. They're now highly engineered, both for materials and design. In fact, NASA even engineered an "adult diaper" for astronauts to wear inside their space suits during lift-off and space-walks!

Super Absorbent Polymer (SAP)

The most important material in an absorbent incontinence product is the Super Absorbent Polymer (SAP). These tiny but complex hydrogel beads can absorb up to 500 times their weight in liquid and swell up to 60 times their size. A teaspoon of SAP can theoretically absorb up to 2.5 litres of water!

SAP is, however, extremely expensive to manufacture. Premium products which contain a high level of SAP are typically 2 to 3 times more expensive than traditional retail incontinence products.



Fluff

Because SAP is so effective but so tiny, it has to be distributed evenly throughout the product's absorbent area. This is where wood pulp fibre called "fluff" comes in.

Fluff is heavily processed wood fibers that have typically been bleached and laid loosely together in soft sheets. The fluff is often compressed with rollers during manufacture to create a less bulky fit for the wearer, while some manufacturers prefer a "high loft" uncompressed pulp which they believe will absorb and distribute liquids more easily.

Most incontinence products are comprised of layers of fluff and SAP-infused fluff which have been laid end to end through the absorbent core of the brief, like a lasagna made of soft paper pulp and highly effective microscopic hydrogels. Many manufacturers also add odour-absorbing or urine-neutralizing chemicals.



Outer Shell

This "lasagna" of materials is contained within the outer shell, comprised of either breathable cloth-like or non-breathable plastic like material. Both materials are typically hydro-phobic/water resistant or water-proof to contain the liquid inside the fluff/SAP layers.

Helpful Tip: Breathable cloth-like materials are generally preferred by healthcare professionals as air circulation is critical to preventing skin breakdown, however many consumers still prefer the plastic-like outer shells.



Product Design

A lack of design features for an incontinence product is one of the most common causes of leaks during the nighttime. The best incontinence products combine both quality materials with a full range of features to contain urinary or bowel incontinence.

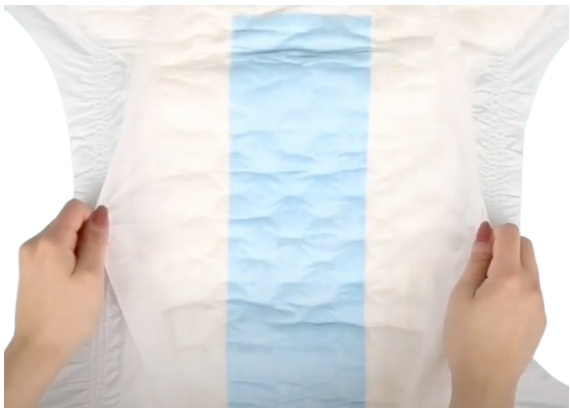
Leg Elastics

A properly fitted adult incontinence product will fit closely to the inside crease where the legs meet the torso. To ensure that this fit provides a good seal, manufacturers use soft elastic leg gathers. Lower quality products typically use only two elastics, while premium brands use up to 5.

Virtually all incontinence products in today's market are completely latex-free, including leg elastics, to accommodate for allergies and sensitive skin types.



Standing Leg Guards



Because brief users can often void suddenly and heavily in a gush, standing leg gathers are a critical feature. These internal cuffs are hydro-phobic (water-resistant) to contain liquid inside the brief or underwear until it can be locked away by the SAP.

Premium quality incontinence manufacturers will include standing leg guards with elastics and sometimes even standing back and front guards.

Tabs or Tapes

For brief or "diaper-style" products, the quality of the tab or tape used to adhere the back to the front around the waist is an important feature because poor tabs will cause the product to shift or gape and cause leaks.

Today, the vast majority of manufacturers use hook-and loop or Velcro-like tabs which allow unlimited re fastenability. A quality product will have tabs which are soft without sharp edges that could scratch the wearer.

Historically, tabs were sticky and only allowed single use. A caregiver could not unfasten the tab to check if the product was soiled, then reseal them.



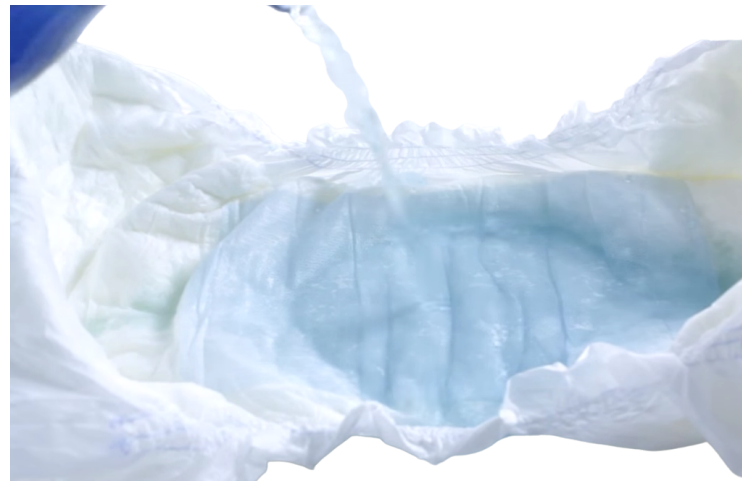
Distribution of Materials

The location and method in which the products fluff and SAP are distributed throughout an incontinence brief can have a big effect on how well it performs in absorbing and not leaking.

Ideally, the most absorbent core of the product (the one with the highest concentration of SAP) should be where the liquid emerges from the body. Quality brand products often have a triple layer of SAP-heavy fluff in the core of the product, and the absorbent material will be distributed evenly, without bunching, so all areas are equally protected.

Additionally, premium brands will be manufactured to encourage flow of urine to the front and back of the product, so it's more evenly distributed. This is done by manufacturing the fluff such that the wood pulp fibres are laid end to end, instead of side to side, so they draw the liquid through the length of the product.

Although most incontinence products are unisex and can be used by either gender, some manufacturers produce products specifically for men or women. These products have an absorbent core that is placed where that specific gender urinates – in the front/top for men and in the bottom/middle for women.



Booster pads (small insert pads which contain several layers of fluff and SAP) can also be used to increase the absorbency of a product, either overall or in a specific area (i.e. at the side for side sleepers).

Wetness Indicator

For individuals with cognitive impairment or loss of sensation, it may not always be easy to tell if a product has been soiled without opening it.

To make it easier for caregivers, many manufacturers include a wetness indicator on the outside of the product which changes colour when the product is wet.

Quality manufacturers will ensure that this wetness indicator runs the full length of the product for optimal visibility, so that the product can be changed promptly before it overflows.



Leak Prevention Cheat Sheet

Potential Cause of Leaks	Why?	Solution
Wrong Size	A product that is too loose will gap at the legs or back.	Measure the waist and hips of the individual and use the larger of the two for true sizing.
Not Enough Super Absorbent Polymer of Fluff	SAP is the absorbent material in briefs. Low SAP content means the product won't absorb much urine.	Look for more SAP-rich briefs that will last longer and absorb more.
Leg Elastics	Leg elastics ensure that the product is fitted close to the body without gaps.	Look for products which have a minimum of 3 sturdy leg elastics.
Standing Leg Guards	Leg guards contain heavy flows of urine until the SAP can absorb it.	Look for products that have standing leg guards and (ideally) front and back guards as well.
Tabs or Tapes	A product with poor tabs will cause gaping or shifting.	Look for products with strong, refastenable Velcro-like tabs or tapes.
Distribution of Materials	A product without an absorbent core, or which is bunched, will not absorb as readily.	Look for products with a high-density core in the area closest to urine output, and one that has SAP evenly distributed without bunching.
Wetness Indicator	Caregivers may not know when a product needs to be changed due to lack of visibility.	Look for products that have a highly visible wetness indicator that runs the length of the product.

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We're Here to Help

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