# *Evaluation of a high capacity super absorbent dressing versus a traditional hydrofiber and a traditional alginate and its' management of peri wound maceration*

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## *Problem statement*

Venous insufficient legs traditionally are very edematous because of valve incompetence and many times weep large amounts of fluid. Sustained compression therapy and ambulation with calf pumping is the traditional treatment. Unfortunately, if an active cellulitis is present, compression is contraindicated until the active infection is brought under control. With this being said, peri wound maceration is even more prevalent and at times, difficult to manage. This study analyzes the ability of a traditional alginate and a traditional hydrofiber versus a high capacity super absorbent dressing and the ability to manage peri wound maceration.

## *Study overview and past treatment and execution*

Thirty residents/ patients were included in this study. All had venous insufficient legs with an active cellulitis and all experienced extremely large amounts of drainage. All had utilized composite and incontinence pads for drainage containment and had maceration of the wound edges. All were being actively treated with antibiotics and no compression could be used at the time they were chosen for the study. All of the legs were cleansed saline solution and pat dried before dressing application and then covered with a composite pad. The clients were followed every three days for 12 days and maceration was documented as a percentage of area encompassing the peri wound. Ten were chosen for each product.

## *Findings*

After three days, using the traditional alginate, 10 of the 10 residents had 100% maceration, on day six, 10 of 10 still had 100% maceration on day nine, 9 had 100% maceration and one had 90% maceration. On day twelve, 8 had 100% maceration and 2 had 90% maceration. After three days using the traditional hydrofiber, 8 of 10 had 100% maceration, 1 had 70% maceration and 1 had 60% maceration. On day six, 7 of 10 had 100% maceration, 2 had 70% maceration and 1 had 50% maceration. On day nine, 5 had 80% maceration, 3 had 50% maceration and 2 had 40% maceration. On day twelve, 8 had 40% maceration and two had 30% maceration. After three days using the high capacity super absorbent dressing**, 4 had 30% maceration, 4 had 20% maceration and 2 had 0% maceration. On day six, 7 had 30% maceration, and 3 had 0% maceration. On day nine, 9 out of 10 had 0% maceration and 1 had 10% maceration. By day 12, all 10 residents had 0% maceration.

### *Alginate findings (% denotes amount of maceration surrounding the wound)*

| Client # | Day 1 | Day 3 | Day 6 | Day 9 | Day 12 |
|---|---|---|---|---|---|
| 1 | 100% | 100% | 100% | 100% | 100% |
| 2 | 100% | 100% | 100% | 100% | 100% |
| 3 | 100% | 100% | 100% | 100% | 100% |
| 4 | 100% | 100% | 100% | 90% | 90% |
| 5 | 100% | 100% | 100% | 100% | 100% |
| 6 | 100% | 100% | 100% | 100% | 100% |
| 7 | 100% | 100% | 100% | 100% | 100% |
| 8 | 100% | 100% | 100% | 100% | 100% |
| 9 | 100% | 100% | 100% | 100% | 100% |
| 10 | 100% | 100% | 100% | 100% | 90% |

### *Hydrofiber findings (% denotes amount of maceration surrounding the wound)*

| Client # | Day 1 | Day 3 | Day 6 | Day 9 | Day 12 |
|---|---|---|---|---|---|
| 1 | 100% | 100% | 100% | 80% | 40% |
| 2 | 100% | 100% | 100% | 50% | 40% |
| 3 | 100% | 100% | 100% | 80% | 40% |
| 4 | 100% | 100% | 100% | 80% | 40% |
| 5 | 100% | 60% | 50% | 40% | 30% |
| 6 | 100% | 100% | 100% | 80% | 40% |
| 7 | 100% | 70% | 70% | 50% | 40% |
| 8 | 100% | 100% | 100% | 50% | 40% |
| 9 | 100% | 100% | 70% | 40% | 30% |
| 10 | 100% | 100% | 100% | 80% | 40% |

### *High capacity super absorbent findings (%denotes amount of maceration surrounding the wound)*

| Client # | Day 1 | Day 3 | Day 6 | Day 9 | Day 12 |
|---|---|---|---|---|---|
| 1 | 100% | 20% | 0% | 0% | 0% |
| 2 | 100% | 0% | 0% | 0% | 0% |
| 3 | 100% | 20% | 30% | 0% | 0% |
| 4 | 100% | 10% | 10% | 0% | 0% |
| 5 | 100% | 30% | 30% | 0% | 0% |
| 6 | 100% | 0% | 0% | 0% | 0% |
| 7 | 100% | 30% | 30% | 0% | 0% |
| 8 | 100% | 30% | 30% | 0% | 0% |
| 9 | 100% | 20% | 30% | 0% | 0% |
| 10 | 100% | 20% | 30% | 10% | 0% |

## *Conclusion*

The high capacity super absorbent dressing exceeded and out performed an alginate and a traditional hydrofiber when being used to manage peri wound maceration.

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