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# Comparison of compression devices from the perspective of a bandage producer

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## Content



- Evaluation of patient needs
- Lack of knowledge
- Influence of the bandage
- Needs for development

# Patient needs – Germany and France



- No regional differences within one country
- Only small differences in the statement of nurses and physicians

	Priority		Need for action	
	DE	FR	DE	FR
Medically effective	1	7		
Compliance	2	1	1	2
Handling / application	3	3	2	3
Wearing comfort	4	4	3	5
Quality of life	5	8	5	
Cost effectiveness	6	9		
Education	7	10	4	
Appreciativeness	8	6		4
Appearance	9	5		
Hygiene	10	2		1



Patient needs – Differences between Germany and France

#### **Germany**



- Medical effectiveness
- Well educated
- Interdisciplinary cooperation should be improved

#### **France**



- Elasticity = Compression
- Minor knowledge about compression therapy
- Minor interest in compression therapy "disgusting"
- Have to be fashionable



Patient needs - Common sense of Germany and France



#### **Germany & France**

- Problems with compliance
  - Do not fit into shoes
  - Warm
- Problems with application / handling
- Do I provide the right pressure?
- Problems with fixing the bandage



Patient needs – Priority by indication and treatment status

Priority	Pre- treatment / prevention	Acute phase	Post- treatment	Long-term- treatment	
Wearing comfort	1.	3.	1.	2.	
Handling / application	2.	1.	1.	1.	
Appearance	2.	4.	4.	2.	
Hygiene	4.	2.	3.	4.	

#### Open questions:

- Which compression device should be used for which indication? And why?
- Which compression device fits at its best to the ascertained patient needs?

# Evaluation lack of knowledge



- Initiation of a PhD-thesis at the Ruhruniversität Bochum (RUB) supervised by Prof. Dr. med. Markus Stücker and Priv. Doz. Dr. med. Stefanie Reich Schupke
- Goal of the thesis: evaluation of the current evidence-status of compression therapy with focus on effectiveness, handling, aesthetic appearance, compliance and quality of life.
- Literature research with focus on similar theses, studies, meta-analyses, case studies.
- Classification and assessment of the found publications in form of a juxtaposition of the different compression devices regarding the patient needs.
- Set-up of a "literature map" for the indication venous leg ulcer.

Vergleichsmatrix Kompresssionsprodukte					Phase I	Vorsorge		
				,	Phase II	Akut		
Indikation					Phase III	Nachsorge		
Phase					Phase IV	Langzeit		
Merkmal	Kurzug	Langrug	Multilayer	7inkloim	Strumpf	PIK		
Medizinische Wirkung		Langzug	iviuitiiayei	ZIIIKIEIIII	Suumpi	FIK		
-								
Compliance								
-								
-								
Tragekomfort								
-								
-								
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Ästhetik								
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-								
Handling								
-								
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-								
Wirtschaftlichkeit								
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#### Results of the thesis



#### **Summary:**

- Till the deadline of November 2011 in total 82 publications are included in the evaluation.
- As expected: most comprehensive results in the area "effectiveness" (27 studies since UIP consensus-document in 2008)
- Only a few publications have been found regarding compliance (26), wearing comfort (19), handling (16), pressure behaviour (16, thereof 7 experimental), profitability (11), quality of life (7) and aesthetic appearance(3).
- But: the measure and control parameters of the different publications are very inconsistent and the evidence grade often very low.

#### **Conclusion:**

There is an urgent need for studies about compression therapy with consistently defined measure and control parameters, specially by consideration of the topics quality of life, wearing comfort and aesthetic, which are relevant for the patients.

# Compression devices and material

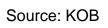


- Short stretch
- Long stretch
- Unna's boot (zinc paste bandage)
- Multi layer systems
- Stockings
- Intermitted pneumatic compression



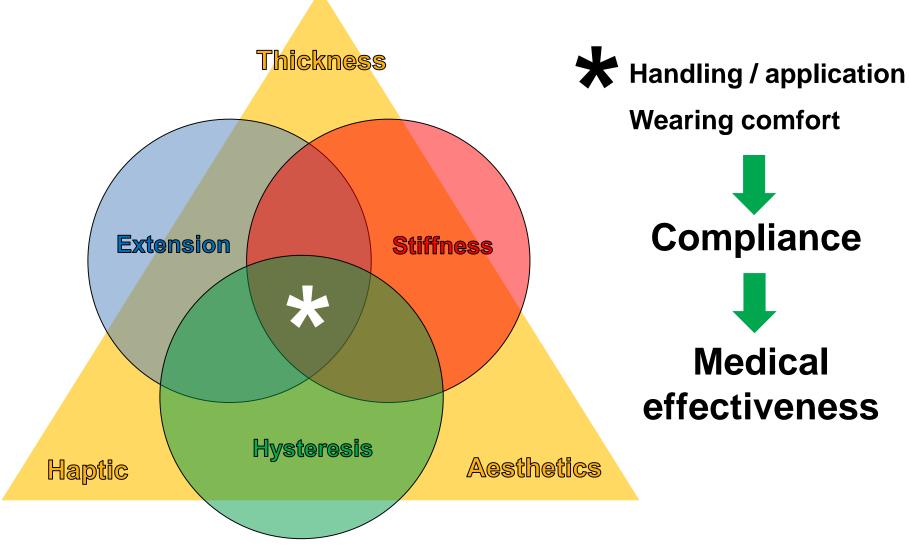






## Material characteristics



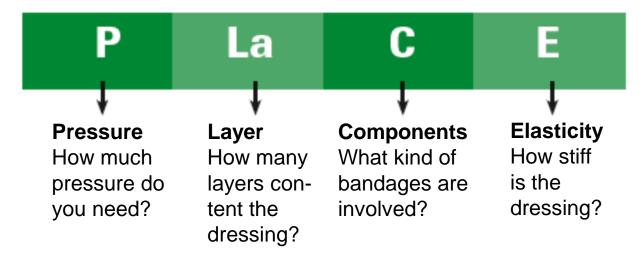


Based on a model of H.A.M. Neumann

#### P-La-C-E



#### Not only the bandage – see the comprehensive dressing ....



#### Not only the dressing – see the entire therapy

- Indication
- Dressing
- Method of bandaging / additional components
- Application time / duration of wear
- Frequency of change





Thank you for your attention!