

Kompressionsbehandling under ekstern fixering

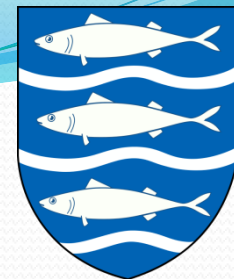
- en mulighed eller umuligt?

Katharine Britsch Schultz

Sårsygeplejerske

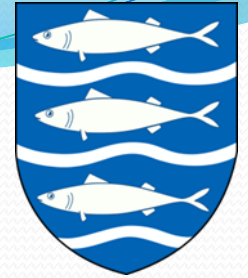
Aabenraa Kommune

September 2022

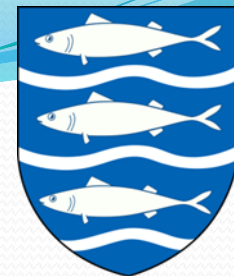


Case

- 74 årig herre med ekstern fiksering af kompliceret tibiafraktur i februar 2018.
- Frakturen er først behandlet med gibsskinne dog uden effekt, hvorfor han i april '18 får anlagt Ilizarov apparatur med 21 pinde
- Denne anlægges på ny start juni 2018 pga. massivt ødem af UE og tryksår
- Har siden han var midt i 50'erne, haft varig kompressionsstrømpe kl. II, grundet en DVT



- Tilflytter kommunen slut Juli '18 og opstarter sygepleje i hjemmet til pindepleje x 1 ugentligt, men pga. massivt ødem og ”grædende ben” udføres der pindepleje og sårbehandling dagligt.
- Starter op i sygeplejeklinikken medio august, grundet arbejdsforholdene i hjemmet



Hvordan gribes det an?

- Jysk sårforum ved Sønderborg – var der én, der fortalte, at Coban kunne anvendes under ekstern fiksering...
- ”kontakt en ven” – daværende konsulent fra 3M, som fremsendte følgende materiale:

• EWMA 2013



REGION **H** **Nordsjællands Hospital**

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Complications Associated with Compression Therapy in Orthopedic Department

Jonas H Andersen, Mikkel Sundstrup and Nina Bækmark

Introduction

Compression therapy is a growing treatment branch within orthopedic surgery. Its beneficial aspects are utilized in wound and edema treatment. There hasn't been much focus on complications to compression therapy.



Fig.1 Bandage applicated with impingement over ankle



Fig 2 Bandage applicated with open heel

Method

Photographic evidence is presented of four common problems in compression therapy

Aim

To show adverse effects of various compression therapy options, and to suggest a possible solution to the problem.



Fig.3 Bandage applicated to tightly



Fig.4 Bandage applied To loosely

Fig 5 Lace-furrows resulting from fig.1



Fig.6 Hemorrhagic blister resulting from Fig 2



Conclusion

In our experience the side effects of compression bandages, although relatively seldom, can be severe. We believe four simple steps can eliminate them altogether

- 1: Strict adherence to the guidelines for starting treatment with and applying compression bandages
- 2: Education and reeducation of caregivers and physicians
- 3: Attention to and willingness to react to signs of complications

Results Consequences of the four presented problems



Fig.7 Pressure ulcer and lace furrows resulting from fig.3



Fig.8 Inefective edema treatment as result of fig.4

Compression therapy has several proved benefits, like lowering risk of thrombosis, and accelerating wound healing. There is however also several proposed effects that are beneficial, like increased bone healing and lowered risks of wound infection. All aspects that are very intriguing in the treatment of orthopedic patients.

More and more patients at our department receive compression therapy for longer or shorter periods of time. We are generally very pleased with the results we have achieved with compression therapy in our patient care post and pre-operatively.

Patients with ankle fractures are now required to receive compression pre and post operatively, to reduce edema and pain, but also to hinder wound healing complications, and infections. Our knee arthroplastic patients are also treated routinely with compression post operatively, as are several of our wound patients, and patients with edema or hematoma and the resulting pain, caused by a wide variety of orthopedic injuries.

As with any other treatment method there is a risk of complications. In the poster we have pointed to some of the more common mistakes, and resulting complications. Although these complications can be severe, and result in prolonged admissions and worse, they are to our knowledge relatively few in numbers, and they are all iatrogenic, caused by the patient not following the given information, or not receiving the required information. Also we feel that the benefits received from compression therapy by far outweigh the complications associated with compression.

Some authors have reported possible nerve damage due to compression therapy, this is not a complication we have seen at our department.

We believe that the complications that do arise as a result of compression therapy can be eliminated by three simple steps

1: Strict adherence to the guidelines of use for each product. This rule can be eased, if the physician or nurse has a sound reason, and pay even closer attention to possible complications (see3)

2: Education and reeducation of the providers, this includes hospital personal (Physicians, nurses and other caregivers) but also providers in the primary sector as homecare personal, nurses who do home visits, and the general practitioners. At our department we hold compression workshops at regular intervals, to educate new personal, and remind and update the experienced colleagues

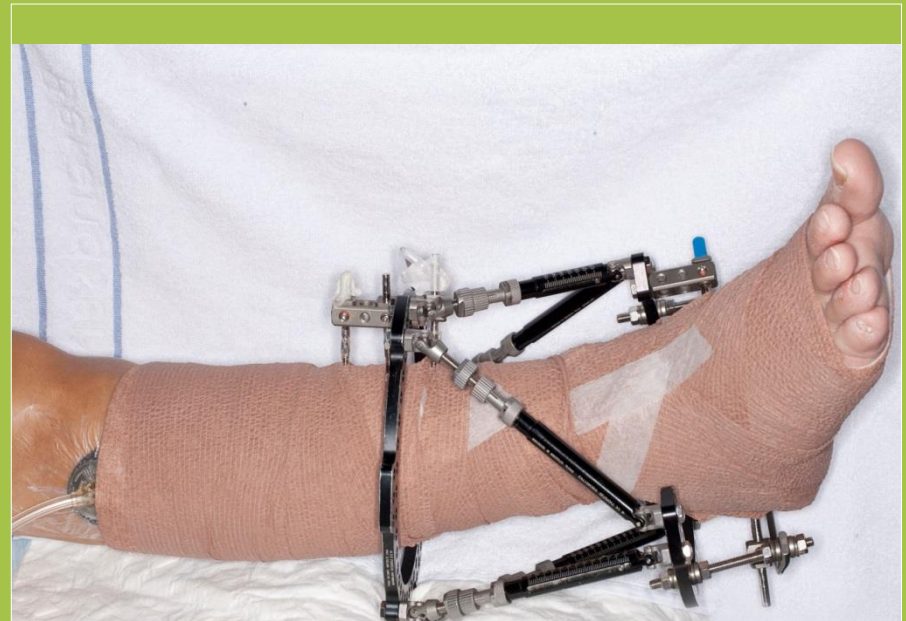
3: Attention to and willingness to react to signs of complications. Listen to the patient, don't just write new or worsened pain of as part of the primary ailment. If patient is'ent capable or willing to control the bandages, schedule regular appointments with experienced caregiver. If symptoms and the objective findings aren't comparable, then remove the compression and evaluate the traded limb underneath

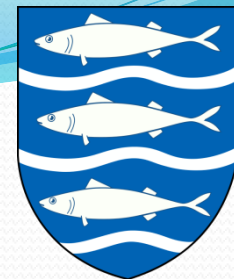
One could argue for a fourth point, information and education of the patient. This can in some instances result in a fare better result for the patient by letting them be a part of the treatment, and at the same time prevent complications and unnecessary visits to out-patient centers and primary-caregivers. At least this is our experience.

We are a team of Orthopedic Surgeons and wound-care Nurses, that provide care for the patients with complicated wounds at our department. At the same time we try to install new and better treatments, both at our department and departments in other hospitals. We are more than willing to share our knowledge and experience.

Hilleroed Hospital Department of Orthopedics Wound-Team

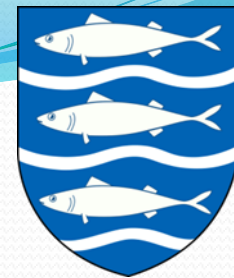
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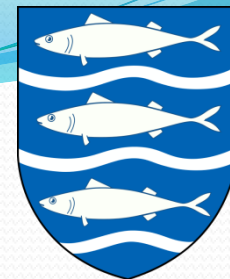


Lille film





- Accept fra borger til at kontakte behandlingsansvarlige læge på OUH, for at få dennes accept og opbakning til kompressionsbehandling.
- Herefter var det "bare" at finde tiden og ressourcerne i klinikken.



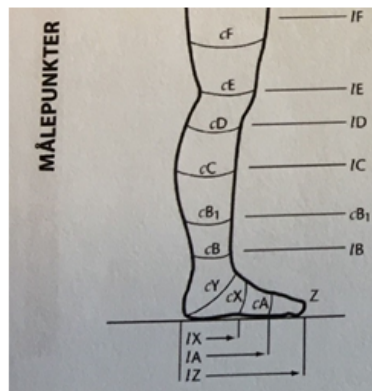
Skema til vurdering af kompressionsbehandlings effekt.

Der måles minimum 2 x ugentligt!

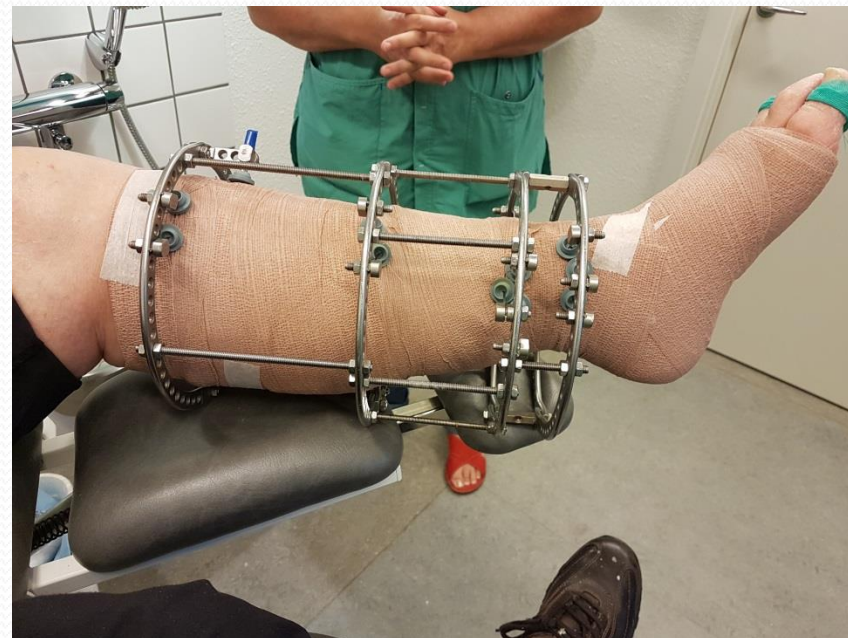
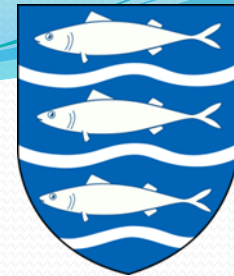
Højre crus: **NB. Husk at skrive antal cm for at måle samme sted hver gang.**

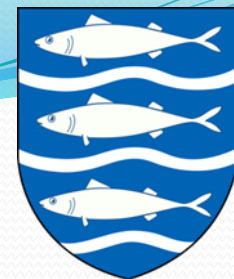
+ Venstre crus: **NB. Husk at skrive antal cm for at måle samme sted hver gang.**

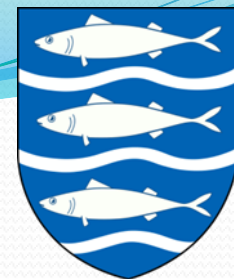
Dato/Initialer	Forfod - cA cm fra spids af storetå	Ankel - cB cm fra hæl	Midt crus - cC cm fra hæl	Under knæ - cD cm fra hæl	Samlet Reduction



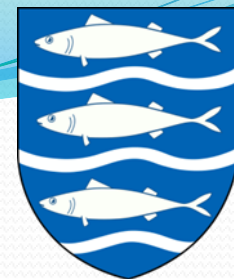
Første anlæggelse d. 14.9.18







- På en periode på 17 dage, hvor Coban forbindingen er anlagt 3 gange, er ve. UE reduceret med 25 cm.
- Borger føler selv, at han har fået mere bevægelighed i UE og kan nu lave flere øvelser ift. hans genoptræningsforløb. – hvilket også ses ud fra fysioterapeutens notater.
- Med Pindepleje og anlæggelse af Coban₂ tager det ca. 90 minutter for 2 sygeplejesker at anlægge bandagen. (når minimum en af dem er øvet i det 😊 - ellers minimum 2 timer)

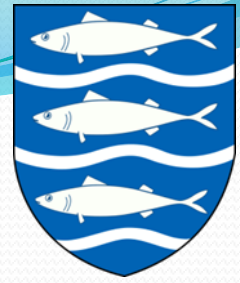


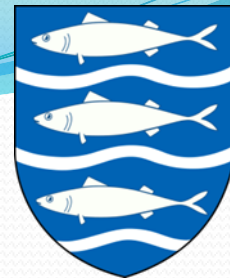
Dato/Initialer	Forfod - <u>cA</u> 5 cm fra spids af storetå	Ankel - <u>cB</u> 9 cm fra hæl	Midt crus - <u>cC</u> 35 cm fra hæl 1 cm under skruen	Under knæ - <u>cD</u> 41 cm fra hæl	Samlet <u>Reduction</u>
d. 14/09-18	25	29	48	43	
d. 19/09-18	23	28	43	40	12 cm
d. 25/09-18	21	24	39	40	22 cm
d. 01/10-18	20	22	39	40	25 cm
d. <u>22/10-18</u>	20	24	36	38	28 cm
d. 09/11-18	20	25	36	38	27 cm
d. <u>16/11-18</u>	20	24	35	37	30 cm

d.14.9.18



d.1.10.18

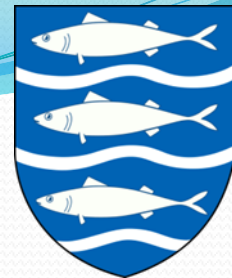




Juzo Compression Wrap

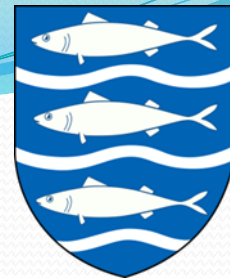


- Kortstrækskompressions wrap
- Individuel justerbar og regulerbar
- Justerbare lukninger og gribezoner

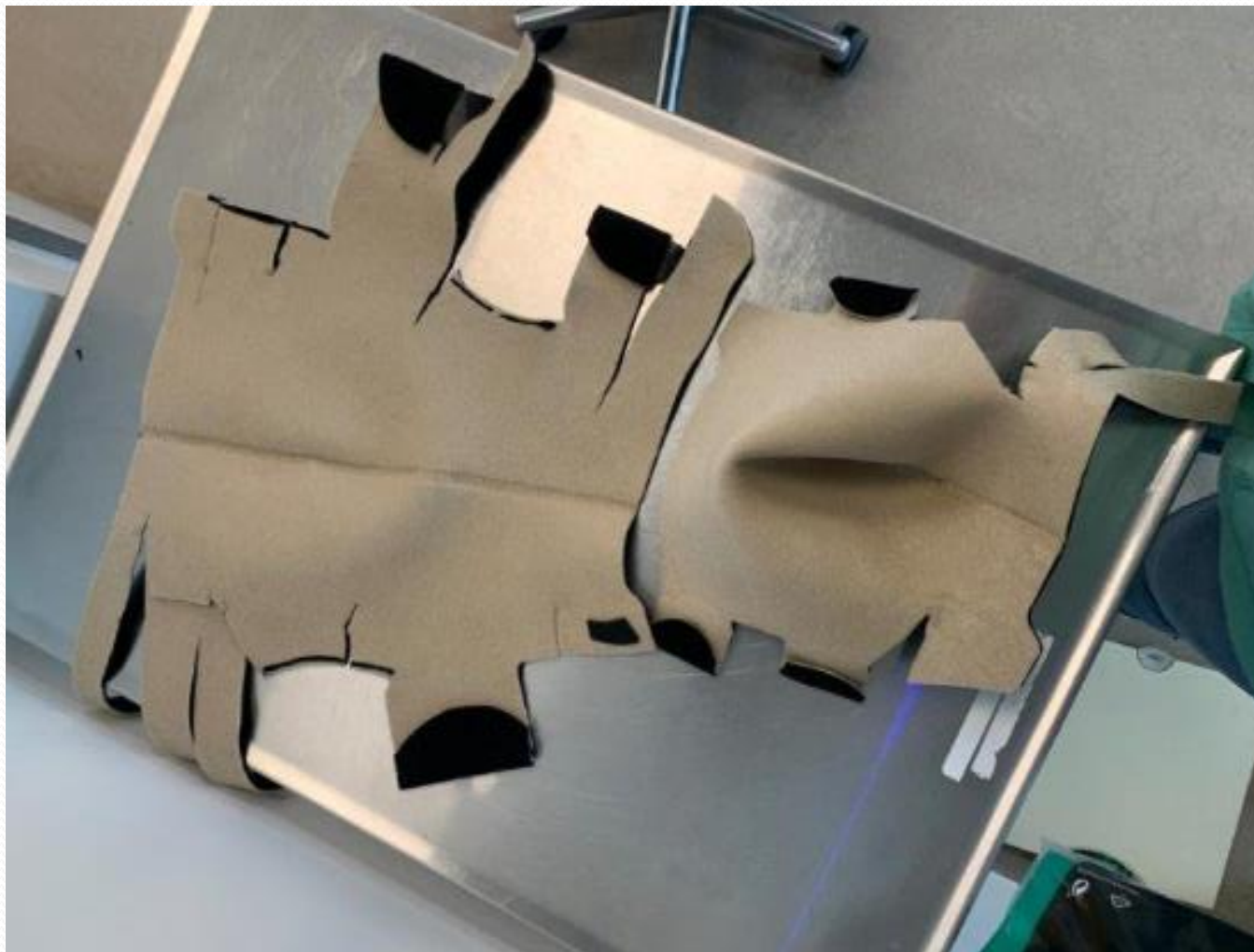


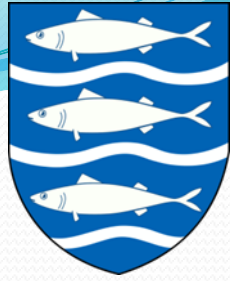
Før





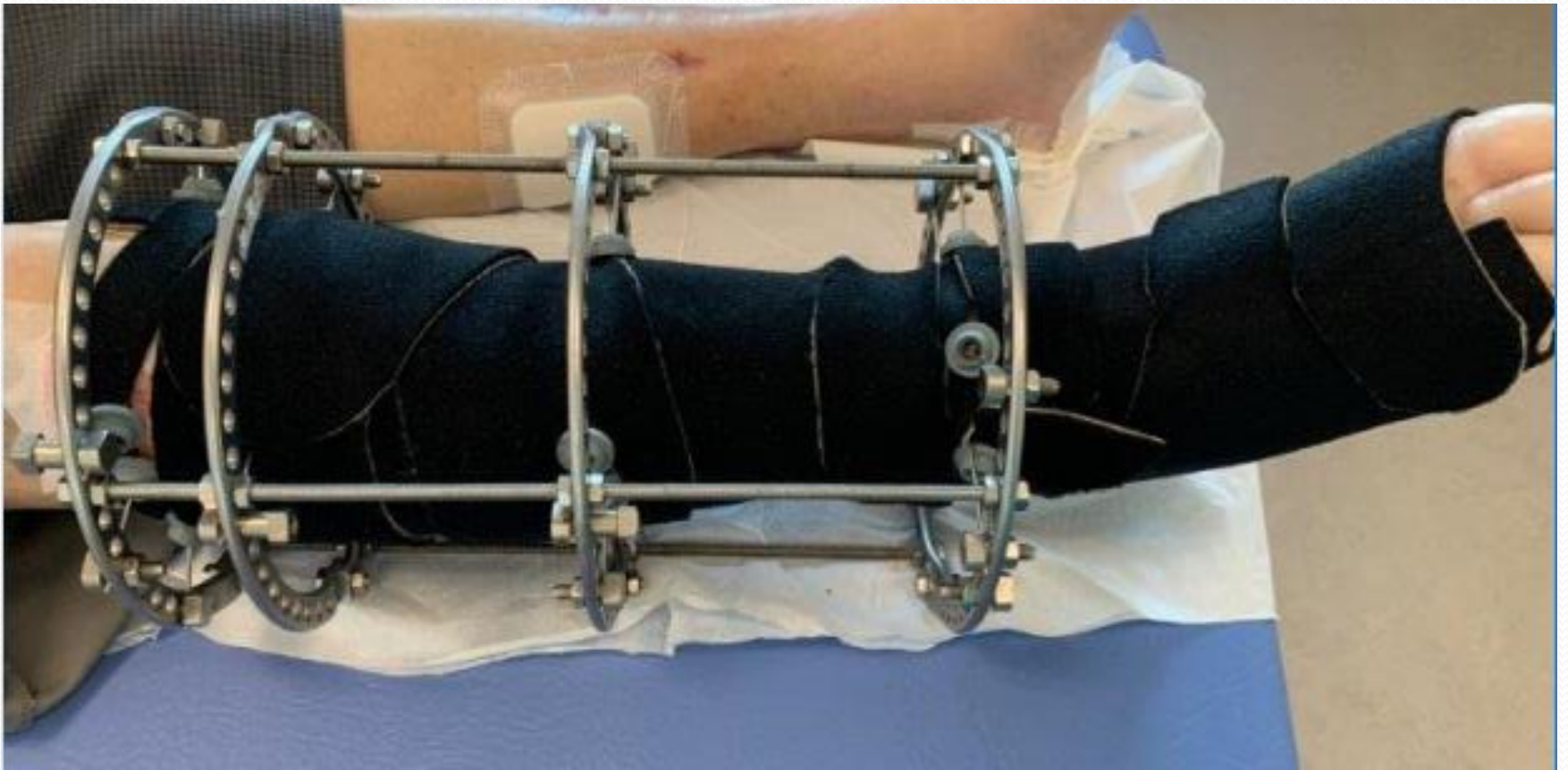
Efter





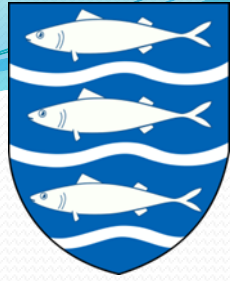
Borger A





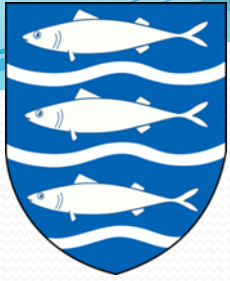


Dato/Initialer	Forfod - cA	Ankel - cB	Midt crus - cC	Under knæ - cD	Samlet Reduction
d. 16/9-22	24	23,5	32	34	
d. 22/9-22	21	22	31	32,5	7 cm



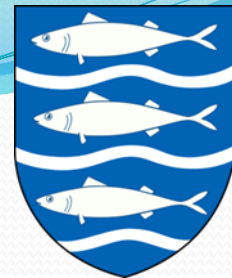
Borger B







Dato/Initialer	Forfod - cA	Ankel - cB	Midt crus - cC	Under knæ - cD	Samlet Reduction
d. 16/9-22	22,5	26	35	39	
d. 20/9-22	22,5	23	32,5	36	8,5 cm
d. 26/9-22	22	23	32	35,5	10 cm



Fordele og ulemper

Coban 2

- Tidskævende ved hver anlæggelse og afklipning
- Kan tilpasses de forskellige ”pinde”, så der ikke kommer små ”helligdage”

Juzo Wrap

- Tidskrævende ved tilklipning
- Nemmere aftagning og anlæggelse.
- Nem at regulere, hvis for stram/ løs

Begge kræver sidemandsoplæring