Vac-Fix 真空式固定具

－ビルドアップの影響が少ない
－有毒なものは含みません
－完全に固定可能
－簡単にふき取りでき、再使用可能
－患者が快適に固定される
－時間と費用の節約になる
－ご指定のサイズと容量に作成します

例、骨盤の固定：

必要なもの：

１．真空固定クッション、CT とリニアック室に、各一つ配置する
２．膝用枕
３．真空ポンプｘ１台
４．マーキング用ラベル（オプション）

型にする前のクッション

膝頭を固定する前のクッション

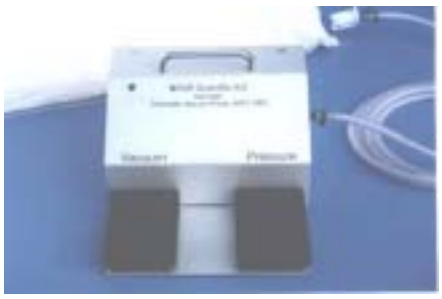
患者の位置決め








可動式３,4 段式保管

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VacFix® Pelvic Fixation

Individual fixation with a new highly effective frame system.

Adaptable to any table top.

Eliminates longitudinal rotation.

Improves reproducibility.

PAR Scientific A/S

CNS fixation - An illustrated step-by-step guide

The search for a comfortable and reliable fixation suitable for radiation treatment of the entire neuro-axis have been a high priority task for many clinics. Considering the contradictive problems with a relatively comfortable fixation with the very high demand for accurate and reproducible field alignments a number of VacFix® users are using the below described techniques successfully.
(*Naturally some clinics will find details not described or used in this example - details that will appear helpful and provide more stability or safety to them and their local situations.)
The described way must be seen as a guideline and first line help to get started.
Any reported tricks and hints trying to improve this fixation technique will be highly appreciated and discussed with our other clinical users.
Please note that this technique is intended for use on adults and relatively old children.
We do NOT recommend to use the prone technique on children younger than 7-8 years.

Requirements:

A VacFix® Vacuum Cushion Use a CNS-special cushion. The one used during the illustrated session is 80 x 145 cm (80 cm on base) with the neck-piece (where the face hole is positioned) being 40 x 40 cm. Filling is 43 Liter. One cushion for each patient in treatment with 1-2 extra in stock. (depending on the total number of CNS treatments on each clinic). Cushions with individual sizes and fillings (for children) are produced on request.

One VacFix® Vacuum Pump - AVP-2 model is recommended. Only one is needed for each clinic. Using the foot valves to control the vacuum level and have both hands free during actual moulding process.

One Aquaplast RT™ Thermoplastic sheet - The type used here is the RT-1892 type being 46 x 61 cm and 3,2 mm thick.

One Aquaplast RT™ Thermoplastic piece - Use a piece of 3,2 mm perforated Aquaplast RT™ in a size that can cover the face area. A piece of 23 x 30 cm is normally sufficient.

One special designed Styrofoam support block - This special designed Styrofoam block is constructed to lift the head/face and help control the angle between the head and the spinal cord, to support the face mask and secure that the patient can breathe. The special curved cut on both sides provides full visibility around the lenses to control proper shielding.
Close-up images of this special design can be found at the end of this guide.

Velcro and hook tape - To attach the moulded thermoplastic sheet to the moulded cushion we recommend to use hook tape on the cushion (as illustrated later) and Velcro tape on the plastic sheet matching the hook tape positions.

Marking labels (black/white type or red/white type) - To be able to match the plastic sheet to the patient and the cushion to form a perfect match it is highly

recommended to use the marking labels on the cushion to produce position marks (see illustrations later).

Pre-mould of face mask:

Place the patient in the supine position. Use a suitable size head rest to secure comfort and stability.
Place the softened Aquaplast RT™ sheet on the face like illustrated.
Mould all fixation points in the face area (like nose, chin, eye brows, forehead and chin line).

When the mask has been moulded to perfection and the material is solid (when colour has changed from transparent to white), draw the "cutting" lines using a marker around

the face, mouth and eyes.
These areas are cut off. Use a solid pair of scissors.

Pre-positioning of the face mask and VacFix cushion:

With the cushion being very soft make sure that the filling is positioned with an even layer all over the area. Do not place too much filling at the "head end". Perform a little bit of vacuum on the cushion - not to an extend where the moulded shape will stay in the moulded position - a little less. Place the Styrofoam block with the thick end towards the head and under the "face hole" in the cushion. The curved upper area of the block is intended to support the forehead and the block and face mask must be positioned to be able to do so.
Place the face mask as illustrated on the image below. Make sure that the cushion is attached to the mask all the way around it.

Patient positioning and VacFix® cushion mould:

Help the patient to lie down in the prone position having the face hit and match the face mask. Make sure that the patient is positioned correctly taking both head position and rotation, angel between head and spinal cord, thorax position and position of both arms into account. It is now the correct patient positioning must be adjusted.
Make the vacuum level to normal "moulding level" - where shape is easily done and mould is staying in the placed position. Adjust the cushion around the head to secure correct position and angle. Make a small lift of the cushion on both sides of the face to make it possible to study the lens position from both sides like illustrated.
Make sure that the part of the cushion that is positioned at the scalp area is shaped in a way that will make later safe support towards the thermoplastic plate.

Let the patient lift one arm and mould a small edge along the body contour like illustrated. Do similar on the opposite side.

Let the patient re-position the arm along the body in a comfortable way but still within the area of the cushion. Make a relatively high and solid edge on the outside of the arm like shown on the image below.

Mould the shoulder regions to make solid support and a smooth outer surface of the cushion for later plastic attachment.
Note the smooth surface around the top of the head area.
Set the vacuum pump to make maximum vacuum level. The Par Pump will stop and make a warning sound automatically when the maximum level is reached. Close the white clamp and secure the valve locker.
Use the marking labels (red or black) to make a "position cross" placed on the top of the head area and one on each side of the shoulder area.
Place all crosses relatively close to the edge between cushion and patient as illustrated.

Make a similar "position cross" on each side of the cushion at an approximate mid-thorax level. Place these crosses close to the cushions upper edge as illustrated.
Please note the moulded shape and position of the cushion on the side of the face. It is important to leave the ears free of cushion and to make a well defined outer cushion shape at this point.

How to mould and position the Aquaplast RT™ sheet:

Place a very thin piece of soft plastic (can be a cut out from a plastic bag) on the patients hair to prevent the plastic to stick too much to the hair later.
It is highly recommended to let 2 persons make the next couple of steps.

Use a 457mm x 610mm 3,2 mm perforated Aquaplast RT™ sheet. Turn the softened sheet to have the long side follow the patient length like shown below. It is very important to start holding the sheet corners like the person at the top of the image is showing to stretch it relatively much before it is placed on the back and head of the patient. The person at the image bottom has already stretched the 2 corners and placed them correctly. It is vital to the final result that the stretch of the mid-sections are done immediately like this person is showing on the image.

Make sure to stretch the material to provide overlay towards the smoothly moulded cushion surfaces all the way around the patient covering approximately 7-10 cm cushion at each side and all cushion areas around the shoulders, neck and head (like shown on image below).
Make a small double plastic layer across the patients bag to increase stability.
Be sure to mould all shapes and fixation points in time (2-3 minutes) - head shape with ears, backside of the neck area, both shoulders, both arm shapes and to follow the natural shape of the lower bag. It is vital to be able to cover all pre-set "position crosses" on the VacFix® cushion.

How to lower material shrinking:

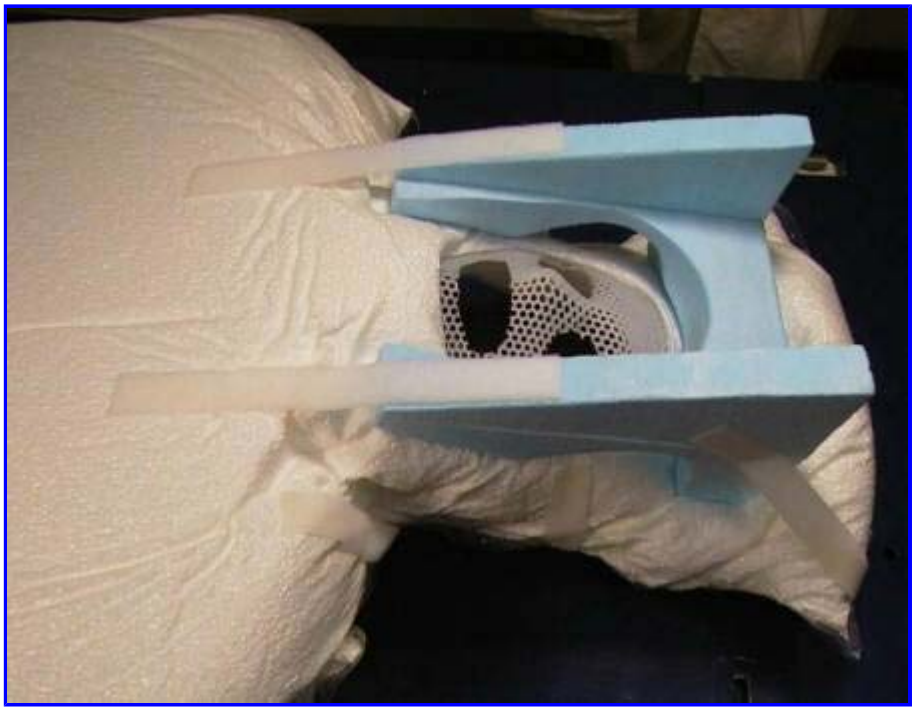
Aquaplast RT™ mould ability is over when the plastic colour starts changing from transparent to white.
Although hard and solid on the outside the material is still soft and warm in the center. This is the main reason for material shrinking of 1-2 %. No thermoplastic material is non-shrinking. The only reason for different levels is how fast each material starts to harden up.
Shrinking can be limited (never totally avoided) by either leaving the mask on the patient for approximately 30 minutes (this is only recommended if moulding is done in the simulator room prior to actual simulation) or the mask is removed when it appears hard and cooler then immediately sprayed with cold water (10 - 12 deg.) during 2-3 minutes.

Please study the image below to see how far to all the sides the thermo plastic should be stretched.
Note the red marker lines indicating where the thermoplastic mask must be cut to perform a better final result.
Where each red marker line is closest to the patient is where a piece of hook tape must be positioned on the VacFix® cushion.
Use the red marker to draw an exact positioned cross on the plastic to overlay each marking tape cross marker on the cushion - 5 crosses totally.

Cut away the plastic along the red marker lines. Use a piece of Velcro tape and form a loop. Mount the open side of the loop on the edge of the thermoplastic where each piece of hook tape is positioned. Attach to the plastic using sharp staples. If patient needs to be MRI scanned use hard plastic types not steel ones. Place a Velcro loop like that on all hook tape positions - 10 in all (on each side of the upper head, on side of the head, upper shoulder, mid-shoulder and lower back) like illustrated below.
The visual small red crosses at each end of the Velcro tape pieces are NOT for alignment use.
They are used in the dimmed light in the accelerator room for visibility purposes only. (Extended clinical use (10 years) often provides minor but important helping tools and hints).

Before the patient is asked to get out of the shell it is very important to try to secure the face mask position inside the moulded cushion. Try to hold carefully with one or two fingers on each side during the re-positioning of the patient.
Use very solid tape (we recommend to use the adhesive hook tape used on the sides of the cushion) and secure the mask position by mounting tape all along the mask edges.

It is imperative to the later reproducibility of the complete mould that the position of the special shaped Styrofoam block is secured.
Use the adhesive hook tape and secure the position and stability by mounting 2 x 2 pieces of tape like shown below.



Detailed images of the special designed Styrofoam head support:

As illustrated this special shape is formed from 3 pieces of foam. The lowest piece is formed by 2 triangles mounted on each side of the upper base allowing the mid-section to be in free air and lifted from the table top.

The upper structure is a little more complicated in shape. The part is shaped in all dimensions like illustrated below to form the optimal support.
The upper curve is for rest and support of the forehead. The 2 curves at each side is to allow for full visibility of the lenses. The oval shape of the "face hole" is to try to follow the natural oval shape of a face. The 2 sloped areas on each side of the face hole is to support the VacFix® cushion on each side of the face and to secure the requested angle of head and neck position to make the control and set-up of the asymmetrically treatment field alignments better.

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Neck Fixation - An illustrated step-by-step guide

The demand for solid and reliable fixation in this area have been known and used for many years. Considering the relatively large number of patients and the fact that Radiotherapy often is the only or best local treatment, almost any RT clinic have tried to find their optimal solution taken both fixation time, reproducibility, price and patient comfort into consideration.
Although IMRT algorithms have been introduced providing a proven possibility to perform very complicated high-dose set-ups with a potential sparing effect to sensitive organ structures, the most commonly used set-up is still 2 opposed treatment fields from right and left side.
An increasing number of individual but in reality identical fixation techniques have been introduced over the last 5-10 years. Most of them are based on the same set-up using a base plate (often in Carbon fiber) with some sort of locking device attached to pre-cut thermoplastic sheets. The backside of the head and neck regions are fixed with a more or less sophisticated "standard" head rest.
Relatively often the users do not find repositioning errors to an extend that forces them to seek other systems. Using the 2-field technique will often result in a relatively large margin between field edge and target volume to be set as standard thereby accepting less accuracy to the day-by-day treatment set-up.

Present and future system demands:

The multi-field technique, either using IMRT software or individual field adding to optimize the dose distribution, demands the highest possible accuracy and reproducibility trying to eliminate every possible error source. These are lack of control and fixation of shoulder region in all planes, standard fit from standard head rest, lack of patient comfort and thereby a non-cooperative patient, thermoplastic with too high memory making it extremely difficult to perform detailed mould over all anatomical structures.

Basically the fixation system must provide totally individual mould, be fully or at least partially re-usable, provide a minimum of build-up dose to the skin, high patient comfort both during actual mould and simulation/treatment, fast and easy-to-learn actual mould with the possibility to cover all relevant anatomical structures that can be individual fixation points, ridged and reliable size and shape lasting the entire treatment period (6-7 weeks) and naturally as a final result provide a reproducibility within a few mm.

The step-by-step guide below describes what is needed and how to proceed and produce a clinical useful and reliable head/neck fixation giving several vital hints. It is recommended to try a couple of times on a staff member prior to any clinical tests.

If this set-up generates your interest, please select our Distributors to learn who to contact in your territory to get more information.

Requirements:

A VacFix® Vacuum Cushion - Use a T-shaped cushion in a size matching the patient size. The one used during the illustrated session is 60 x 80 cm (60 cm on base) with the neck-piece being 25 x 30 cm high. Filling is 13 Liter. One cushion for each patient in

treatment with 5-10 % extra numbers in stock.
Cushions are produced with individual sizes and shapes.

One VacFix® Vacuum Pump - AVP-2 model is recommended. Only one is needed for each clinic. Using the foot valves to control the vacuum level and have both hands free during actual moulding process.

One Aquaplast RT™ Thermoplastic sheet - The type used here is the RT-1892 type being 46 x 61 cm and 3,2 mm thick. If multi-field technique is required it is recommended to use the 2,4 mm thickness and avoid the cut out of the treatment fields to reduce build-up skin dose.

Velcro and hook tape - To attach the moulded thermoplastic sheet to the moulded cushion we recommend to use hook tape on the cushion (as illustrated later) and Velcro tape on the plastic sheet matching the hook tape positions.

Marking labels (black/white type or red/white type) - To be able to match the plastic sheet to the patient and the cushion to form a perfect match it is highly recommended to use the marking labels on the cushion to produce position marks (see illustrations later).

Pre-mould and Patient positioning:

With the cushion being very soft make sure that the filling is positioned mostly at the "head end" having an average thickness of 5-6 cm on the narrow piece and similar thickness around the shoulder section. The aim is to shape like a wedge with the thick end under the shoulders filling up the space to the table top completely.
Make sure the patient is positioned in the longitudinal direction in a way matching the top of the cushion being on the same level as the top of the scalp when the cushion has been pressed up against the base of the neck to perform the individual shaping of that particular area.
Naturally the patient must be placed anatomically correct with even shoulder level and balanced head position. Use position lasers if available.

Using the attached vacuum pump set the vacuum level to make it possible to shape the cushion leaving each shape as it is. Due to the nature of the pump it is necessary to re-do the vacuum level setting a few times to make this optimal at all time.
Move the head backwards until the base line of the "mandibula" is vertical to the table top. Make sure that the cushion is moulded around the backside of the neck to provide maximum individual support in this area.
Ensure that the filling and shoulder position to the cushion is as illustrated.

How to mould and position the patient - VacFix Cushion:

Use the Vacuum Pump to perform an actual vacuum level where the cushion is relatively easy to form but still capable of keeping each shaped structure as moulded.
Press the shoulders downwards via the filling in a way where the upper edge of the cushion follows the shape of the "trapezus" muscles and at the same time files out the space between shoulder and table top to give maximum control of shoulder position and optimal support.
Try to mould the cushion surfaces on each side of the shoulder area as smooth as possible to provide a later base for the thermoplastic sheet.

Make a small low but marked edge around the head base contour. Make the edge towards the scalp a little higher if possible.
This edge is used both as a fixation point itself and as a guideline when the patient has to match the shape during set-up and actual treatment.
The trick is to let the patient start a little higher positioned and then slide down until the head has just passed this structure. Doing so will bring the longitude position in the moulded VacFix® cushion correct.

Position markers to align cushion and thermoplastic:

Evacuate the cushion to the maximum using the Vacuum Pump. The pump will stop automatically when maximum level is reached. Close the white clamp completely (to the last edge) or close the valve and secure with a piece of tape.
Use the red or black markers to form a cross on each side of the shoulders - as illustrated.
Now is the time to make a final check of the correct patient positioning in all levels. Use position lasers if available.
Re-do fixation if patient position is not correct.

Mould of front shell using Aquaplast RT™ thermoplastic sheet:

Remove the Aquaplast RT™ sheet from the water bath and place it on table where the Ultra Thin Net is positioned. Use a towel to remove some of the remaining water. Do this operation fast to allow the total moulding time to be longer.
Place the softened sheet (61 x 46 cm in 3,2 mm is used in this session) onto the patient as illustrated starting on the level around the armpits.
Hold the 2 top corners as shown to avoid unwanted folders in the plastic material.
Let the Aquaplast RT™ fold along the patient contours. The unique behaviour of Aquaplast RT™ (very little internal material memory) makes it possible to construct a large number of single fixation points using only one person to mould (see later).

Start with making a double folder plastic on each side (top - bottom) like illustrated on the image below. This is to make the final mask more ridged allowing to cut our the treatment field shapes (to lower the skin dose) maintaining the mask stability.
Use both hands to mould all possible fixation points in the area (nose, chin, ears, eye brows, shoulders including the "clavicula" impressions on both sides and all the VacFix cushion shapes that are overlaid by the plastic).
The unique low material memory on Aquaplast RT™ allows the user to mould any impression only once. The moulded plastic position will stay as positioned during hardening without having to hold and maintain the pressure. This means that one person is capable of making sufficient mould of a very high number of individual fixation points (the number can be between 20 and 25) during the 2 - 2½ minutes of total moulding time.

How to lower material shrinking:

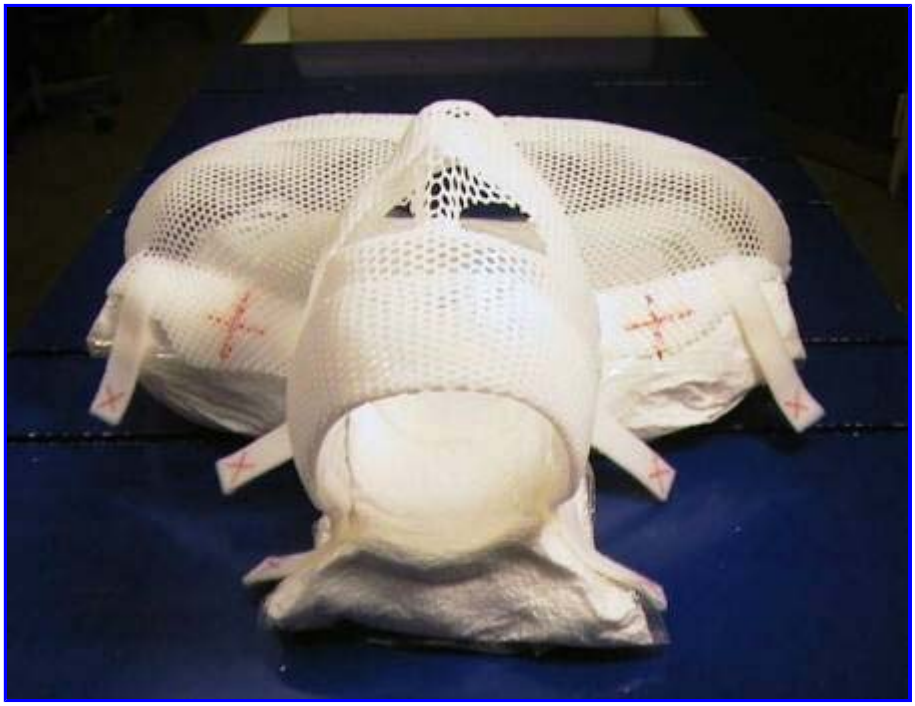
Aquaplast RT™ mould ability is over when the plastic colour starts changing from transparent to white.
Although hard and solid on the outside the material is still soft and warm in the center. This is the main reason for material shrinking of 1-2 %. No thermoplastic material is non-shrinking. The only reason for different levels is how fast each material starts to harden up.
Shrinking can be limited (never totally avoided) by either leaving the mask on the patient for approximately 30 minutes (this is only recommended if moulding is done in the simulator room prior to actual simulation) or the mask is removed when it appears hard and cooler then immediately sprayed with cold water (10 - 12 deg.) during 2-3 minutes.

How to align plastic mask and cushion:

When the mask is totally white indicating it is ridged it is time to mark the mask position towards the VacFix® cushion.
Use a red (or black) marker and draw carefully identical position crosses on top of the ones visible through the mask holes.

How to prepare and finish the head/neck fixation:

Cut away the plastic material covering the low parts of the cushion close to the table top like illustrated on the photo below.
Leave the mask on the patient while the adhesive hook tape pieces are attached to the VacFix® cushion (one on each side of the shoulder part, one on each side of the jaw angle and one on each side of the upper head parts).
Each piece of Velcro tape is formed as a loop with the open end towards the plastic sheet. Attach each Velcro loop piece using sharp staples exactly on top of each piece of hook tape. If the mask is needed during MRI the sharp staples must be made of hard type plastic and not steel.
It is recommended to use 3 pieces of tape (hook and Velcro) on each side of the patient.



The visual small red crosses at each end of the Velcro tape pieces are NOT for alignment use.
They are used in the dimmed light in the accelerator room for visibility purposes only.
Extended clinical use (10 years) often provides minor but important helping tools and hints.

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Pelvic / Prostate Fixation - An illustrated step-by-step guide

The fixation of the pelvic region is considered one of the most difficult areas. The combination of large differences in patient outlines and relatively high mobility of internal organ structures with day-to-day variety in the single patient makes the creation of the ideal fixation almost impossible.
An increasing number of complicated, high cost fixation systems and combinations are commercially available, most of them with little or no proven increase in accuracy.

Anatomical and physiological studies have demonstrated that control and fixation of the position of the patient legs from hip joint to the base of the feet provides similar control of the pelvic area position as any high cost, high-tech and complicated system combination.

The step-by-step guide below describes how to create a clinical useful Pelvic Fixation. Vital and useful hints are included to help you getting started and accomplish an excellent fixation. It is recommended to try a couple of time on staff members prior to any clinical tests. Click on the pictures below to get higher resolution image.

Requirements:

A VacFix® Vacuum Cushion - Either 100 x 80 cm with 35 L. filling or 100 x 100 cm with 40 L. filling.
One cushion for each patient in treatment. We recommend to have a few extra cushions available.

A Knee pillow - 2 different sizes in one set. One large model for relatively tall patients and one small model for relatively short patients. One set per room. The knee pillow belongs to the room (mould room - simulator - CT - treatment room) and the vacuum cushion follows the patient.

One VacFix® Vacuum Pump - AVP-2 model - The large battery powered model is recommended. Only one is needed for each department. Using the foot valve for controlling vacuum and pressure allow the user to operate with both hands during the moulding process.

Marking labels (optional) - To avoid too many non-reliable skin markers it is recommended to use marking labels on the vacuum cushion as well (see later description). Marking labels are available in red line (on white) type and white line (on black) type.

Pre-mould of the cushion:

It is strongly recommended to perform a "pre-mould" on the vacuum cushion prior to actual mould. Obtain a vacuum level on the cushion where it is relatively soft but still mouldable. It must be possible to shape part of the cushion using 2 fingers without force.

It is necessary to know where extra filling will be needed (during the actual patient fixation).
Pre-mould the cushion to ensure: Sufficient filling in the center (between the legs) - enough filling in the "feet section" to allow mould to the tip of the toes and full support under the feet - perform a little concave shape app. where the legs will be positioned - mould the cushion smoothly towards the knee cushion (see next image) to ensure sufficient filling and later support of the back side of the fibula region.

Pre-mould against the knee cushion:

This image illustrates how the cushion must be pre-moulded towards the knee cushion to ensure a smooth passage. Please note the amount of "extra" filling for later mould between the legs. It is recommended to pre-mould the 2 outer sides as well.

How to position the patient:

The patient is positioned as illustrated with the knees exactly on the top of the knee pillow. Let the patient find a relaxed "natural" position. Use the room lasers to position the pelvic area symmetrically to the iso-center. Ensure that the legs are in a position where the patient feels a comfortable rest.
Be sure that you have sufficient filling under the feet.
Press part of the cushion against the arch of the foot to provide full support.

Perform a little higher vacuum level. The cushion must still be mouldable but relatively hard. This vacuum level will be slightly different from mould room to mould room. Try a couple of times to find the optimal vacuum level.
Use the pre-moulded central filling to create a small but supportive edge along the medial part of the fibula on both legs. Ensure a similar edge along the heel on both feet. Be careful to ensure that these edges will allow the patient to "escape" the cushion if necessary.
Above edges are needed for re-positioning purposes mostly. Due to the natural position of "relaxed" legs, the strongest support needs to be towards the lateral sides of both legs.

Mould a high and strong supportive edge along the lateral side of each leg. Ensure that this edge follows the shape of the leg. Try to create the most lateral part of the cushion smooth with a minimum of wrinkles. This area can be used for a solid marking label positioning.
Be careful not to overlay the lateral toes.

Full supportive mould around each foot is an essential part of this type of fixation. The cushion must provide full support under the arch, heel and toes (to the tip). A small cushion edge (to secure easy reproducibility) has been made along the medial side of the heel and the arch of the foot.

Please notice how the most distal part of the cushion has been shaped to ensure optimal arch support.
When the mould is complete the vacuum must be generated to the maximum level. Using the AVP-2 vacuum pump this level is reached when the indicator beeps and the motor is stopped automatically. Close the white plastic clamp on the valve immediately and secure the valve.
Beam markers can be mounted either as supportive laser markers only or as beam entry markers.
If the patient is to be treated with iso-center technique it is recommended to position the feet towards the simulator (and linac) gantry. Simulate and mark the treatment fields the way required by the department standards. When all fields have been verified and approved position the patient in the exact treatment position using the room lasers. Make an exact read-out of the table longitudinal position - move the table away from the gantry until the vacuum cushion is positioned in the central axis position. Make minor adjustments in the longitudinal position to ensure a recognisable off-set value. Use the VacFix(Beam Markers to mark the entry points on anterior and both lateral fields. It is recommended to mark the medial laser position using one or two markers.
When the patient is re-positioned on the treatment table the set-up is done using the room lasers and the markers on the cushion. When accepted move the table top the exact number of mm from the simulators off-set value. Make a check of the 2 lateral lasers position. If they overlay the 2 field entries exactly the set-up is perfect. The position of the anterior and posterior treatment fields should not be corrected towards skin mark positions of those field entries.

Please note the natural and relaxed outward rotation of the legs when the patient is positioned like this.

The complete system without the patient. Please note the smooth passage from knee pillow to cushion. Please note the low cushion edges marking the central fibula, the heel and the arch of the foot. The cushion surface between the legs has been moulded as a very smooth surface to ensure a stabile position of the markers.

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VacFix® Vacuum Cushions

VacFix® Vacuum Cushions are the original, high quality reliable vacuum fixation cushions. It has the thinnest plastic foil available to reduce the build-up effect to a minimum - yet extremely ridged and resistant towards foil rupture.
The ability to mould very fine structures and thereby include the highest number of fixation points provides the optimal reproducibility - a more and more vital issue in modern Radiotherapy and diagnostic procedures.
Our famous flexibility towards customized sizes, shapes and fillings combined with a very fast production time makes it possible and very easy for the user to have their own design to meet the exact local demands and specifications. This flexibility is only available by Par Scientific A/S

- The ultimate solution for maximum accuracy
- Very low build-up effect
- Reusable
- Non-toxic
- Perfect fixation
- Fast, clean and easy to use
- Comfortable

patient fixation
- Time and money saving
- Two years warranty on weldings
- Customized sizes and shapes

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VacFix® Accessories

Vacuum Pumps.

Par Scientific offers two handy vacuum pumps for evacuating the cushions. Both models are cordless providing easy operation. Selection of type depends on demands.

VacFix® Storage Carts

The cart is available in 2 standard sizes to meet the most basic demands.
VacFix® Storage Cart increases the cushion life and decreases the demand for additional space in each accelerator room.
The carts are equipped with wheels for easy transportation.

Knee Pillows

Knee pillows are an essential part of a good Pelvic/Prostate fixation.
Providing an excellent patient comfort and ensures a good contact to the vacuum cushion and a solid fixation.

Fixation Table

The VacFix® Fixation Table is designed to provide adjustment flexibility and stability yet being a light weight system that is easy to move. The large size table top is constructed in co-operation with skilled VacFix® users world wide to meet any clinical demand during mould.

Marking Tape

Marking tape in two different colours are used in a variety of clinical situations as a vital helping tool. Being adhesive on one side it can be used anywhere where accurate removable markings are required.
Please investigate detailed description and use in the clinical fixation studies.

Position Guides

Position Guides (male and female) are used on simulator table top and accelerator table top in identical patterns allowing the associated guides positioned at the back of each cushion to match exactly thereby obtaining exact and identical position of the cushion.

Velcro Tape

Velcro tape - or hook and velour tape is used mainly to mount thermoplastic sheet to the vacuum cushion. Please investigate detailed description and use in the clinical fixation studies.

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