
Back Care and the Back-Up®
by
Nada-Chair®



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Introduction

Congratulations on your purchase of the Back-Up® by Nada-Chair®. To gain the maximum value from this product, take the time to acquaint yourself with all the instructions in this manual. Because the product is new and unusual, there is much that you will need to learn about it. The concept is quite simple, but if you miss some of the instructions, you might also miss some of the valuable convenience features that make the Back-Up® as easy to use as it is effective.

Included in the back of this booklet is a warranty card that we encourage you to complete and return. Nada-Chair® will need this information to keep you updated with new products, accessories, features and uses that are developed. Also, on the card there is room for your suggestions. If you find a way to enhance the value of our product or have ideas for new products, please let us know. If you have questions or want to contact the company for any reason, you can find a label stitched onto each chair by the adjustment buckle that lists our phone numbers, address and current patent numbers.

Features and Benefits

The Back-Up® is the most effective back support system available:
Instant back comfort is as easy as a gentle forward pull on handy adjustment straps. The relief you feel comes from placement of solid support on the lumbar spine--just where you need it. Chairs cannot provide this level of support to the lumbar spine.

The Back-Up® provides ergo-dynamic support for the back:
Where other sitting supports provide their benefit in a passive way, the Back-Up® is unique in the manner it provides dynamic support. Because the Back-Up® requires no external means such as a chair-back to keep you supported, it can move with you offering inescapable comfort in any sitting position.

The Back-Up® is adjustable:
The Back-Up® is a chair that you wear and adjust to fit a small child as well as a very large adult. Additionally, this adjustability allows it to conform to your many sitting positions--whether on the floor, cross-legged or on regular chairs or bench seats.

The Back-Up® is portable:
The Back-Up® zips into a self contained carry pouch that weighs only ounces. Unlike other chairs, it works equally well in your office chair or on stadium seats.

Warnings and Disclaimers

We do not recommend those being treated for back conditions use this product without first consulting with their physician or health-care professional. The Back-Up® is being effectively used by medical professionals to treat their back patients. However, because no two back problems are identical, it requires a trained professional to determine whether the Back-Up® will be likely to help in your individual case. Seeking wellness should be done in cooperation with a health-care professional. Thus, this instruction booklet is not to be considered a prescription or advice regarding your particular back condition. **Nada-Chair® cannot be medically or legally responsible for the unsupervised use of the Back-Up® to treat any back condition.**

It is unsafe to use the Back-Up® while driving or operating any motor vehicle. Because the Back-Up® could potentially restrict the movement of the legs to operate foot controls, it should not be used for driving. Injury or death could occur if the Back-Up® were to prevent the rapid use of brakes or other controls.

We recommend you take periodic breaks to remove the Back-Up® straps and stretch your legs. While the placement of the straps over the kneeling bone will not inhibit circulation in the legs, the Back-Up® may significantly extend the time you are able to sit comfortably in one

position. In some sitting positions, such as cross-legged sitting, you might find that folding your legs for prolonged periods will make your legs tingle or "go to sleep"

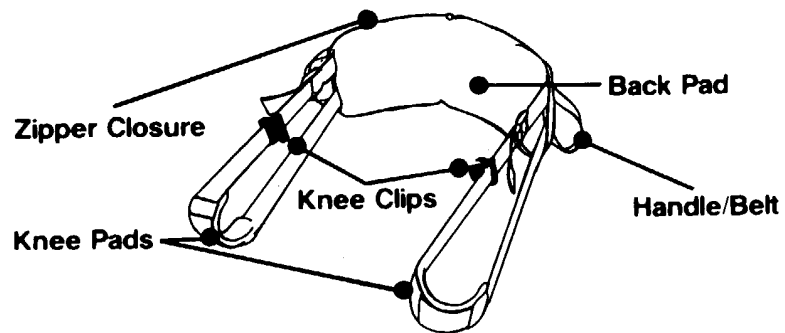
Do not leave the knee buckle clasped when you are walking because this will prevent the Back-Up® from safely tearing away from your body if the loops become caught or entangled. The feature of the waist belt is an important convenience for times you are up and down. The hook and loop fastener will allow the Back-Up® to safely tear away if the hanging straps accidentally catch on door knobs, chairs, banisters and the like.

Note: You will find a warning label stitched onto each chair by the adjustment buckle. Do not remove this label as it will be important for future users.

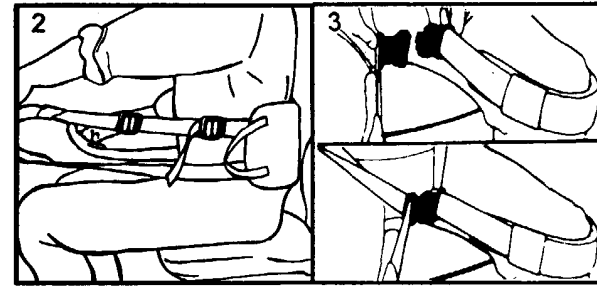
Basic Back-Up® Instructions

The Back-Up® is simple to use. Once you have successfully put it on and learned to adjust the Back-Up®, you will have a life-long comfort companion.

Step 1: Unzip the Back-Up® completely and unfold the back rest to reveal the straps and knee pads inside. Slide the knee pads so they are centered on the looped straps. Also make sure the straps are untwisted so you have a configuration like that shown in Figure 1 below.



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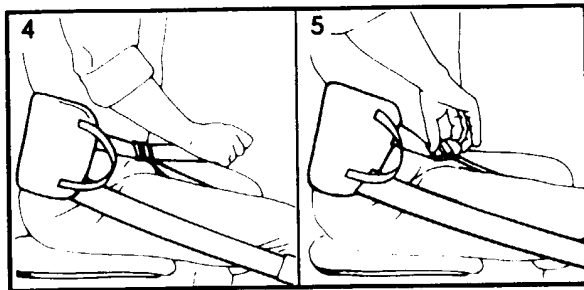
Step 2: Place the inside of the back-pad against your lower back and hold the loops out in front of you. Make sure that the straps are untwisted and that the adjustment buckles are on the upper strap--see Figure 2. (Note: Ignore the product cover photographs.)

Step 3: Place one loop over each knee making sure that the knee pads face inward to cushion the knee. Slide the knee pads on the straps to center them over your kneeling bones. (Locate your kneeling bone by feeling for the bump above your shin but below your knee cap.)

Step 4: Before tightening the straps on your knees, engage the two halves of the knee clip to hold the legs together--see Figure 3.

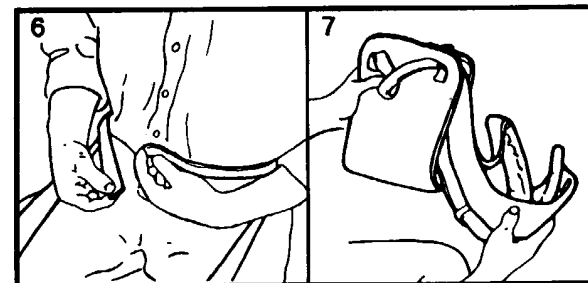
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Step 5: Now, tighten the straps by leaning forward while pulling the loose end of each strap forward--see Figure 4.



Step 6: Too tight? Simply loosen the straps by lifting up on the front edge of the buckle--see Figure 5.

Step 7: To convert handles to a waist belt, detach the handle loops from tabs located at the hips. Draw these straps across your waist and fasten comfortably--see Figure 6. Lean forward slightly as you stand to allow the loops to slide off the knees. When you sit again, simply lean forward, replace the pads on the knees and lean back.

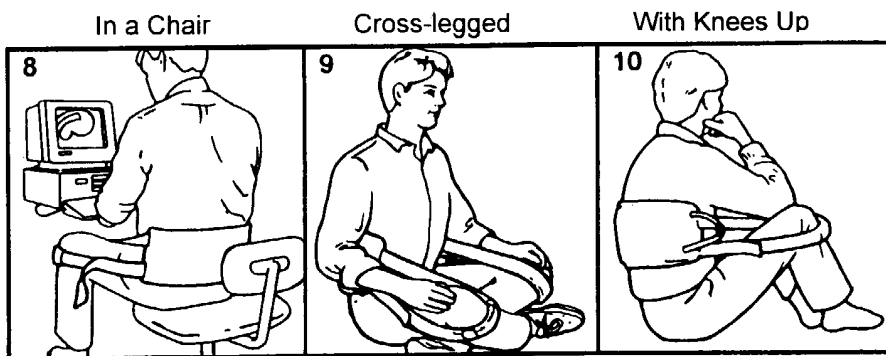


Step 8: To remove your Back-Up[®], unfasten the belt, release the knee clip and lift the loops off your knees.

Step 9: To re-pack the Back-Up[®] into a self-contained carry case, fold the back pad in half and zip up two sides to make a pouch--see Figure 7. Reattach the waist belts to the hook and loop tabs to recreate your carry handles. Then stuff the kneepads deeply into the pouch, one by one. Finally, stuff in the remaining straps and buckles and zip up the remaining side.

Positions for Use

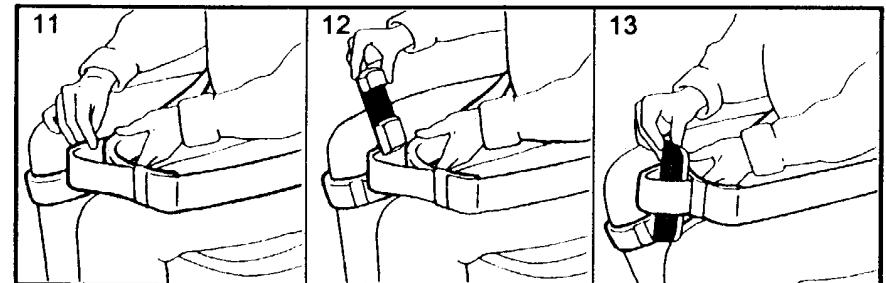
You can use the Back-Up® in three basic positions although variations on each are possible. (See Figures 8 - 10)



Note: In the cross-legged position, the use of the knee-clips is optional. When sitting on the floor with knees up, the back pad should be raised higher on the back for greater comfort and stability.

Using the Cush-Shins

The Cush-Shins are designed to supplement the knee pads that are already on the Back-Up®. They are generally unnecessary unless you are sitting with the Back-Up® for extended periods, for instance, if you are sitting all day at the computer. They are also designed for people who, for whatever reason, find the pressure on the knees to be uncomfortable. The Cush-Shins disperse pressure over 2½ times the area on the shin affording extra comfort for longer sitting periods.



Step 1: Pull out some slack in the strap at the middle of the knee pads. (See Figure 11)

Step 2: Insert a Cush-Shin into the opening making sure the larger foam piece is on the bottom. (See Figure 12)

Step 3: Fit the Cush-Shin over the knee pad and lock it in place by drawing the strap tight. (See Figure 13) Position the pads on your knees to maximize your comfort.

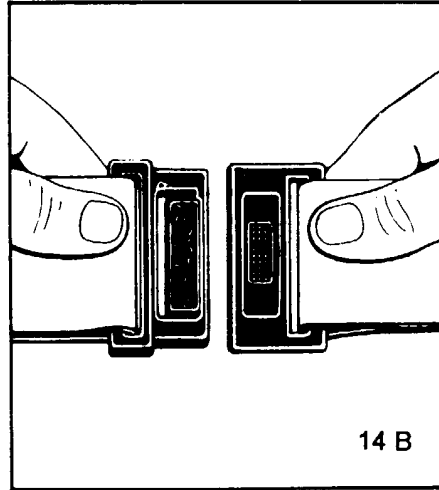
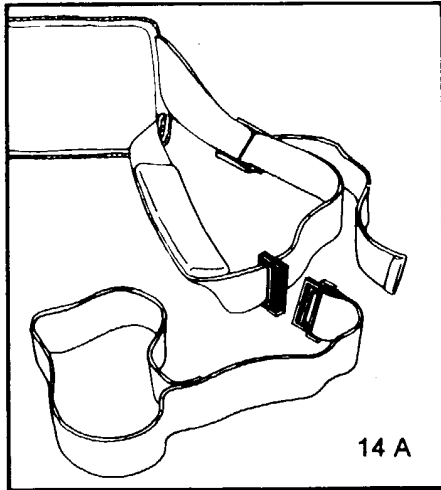
To transport, you can easily remove the Cush-Shins and zip them into the side pouch before making the Back-Up® into a carry case. Alternatively, using the following procedure, the Cush-Shins will fit with the straps in the zipper carry pouch: Zip two sides of the back pad to form a pouch. Lay both knee pads and Cush-Shins together (like spoons) and stuff them deeply into the pouch making sure the knee pads don't fold over. The remaining straps will follow with enough room to zip the final side shut.

Using the Stretch-Straps

- 1) It is usually recommended to warm up your muscles with light exercise before stretching. Do not attempt to over-stretch tight muscles. Muscles will respond best to daily and gradual stretching. Gradually increase the tension as your muscles begin to become more flexible. The buckles are rated at 100 pounds each. Leaning back with excessive force can break the buckles.
- 2) Those with back conditions should perform the following stretches only under the direct instruction and supervision of their doctor or therapist. While the Back-Up® can provide a safe and healthy means of stretching even for back sufferers, you should seek the advice of medical professionals to avoid exercises that might be potentially harmful for your specific back condition.
- 3) Do not use the Stretch-Straps as a back support in activities (such as kayaking) where accidental entanglement could cause injury or death.

Assembly

To attach, simply clip the Stretch-Strap buckles into the matching clips on the Back-Up® straps--see Figures 14a and 14b. Extend the loops of the Back-Up® sufficiently to engage the feet with the loops of the Stretch-Strap. Place the back support where you want it and then lean forward with straight legs and adjust the straps to stretch. To immediately ease the stretching on the muscles, simply bend the knees.

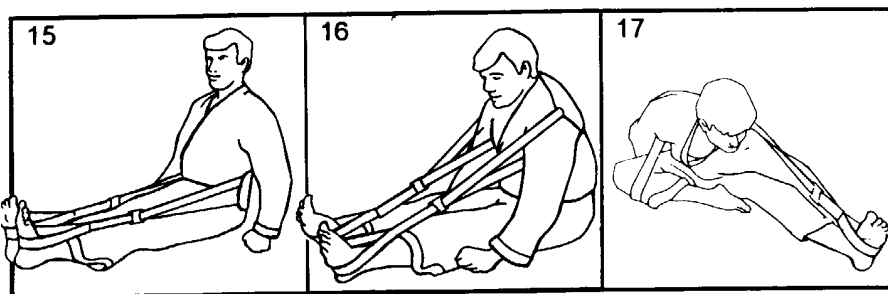


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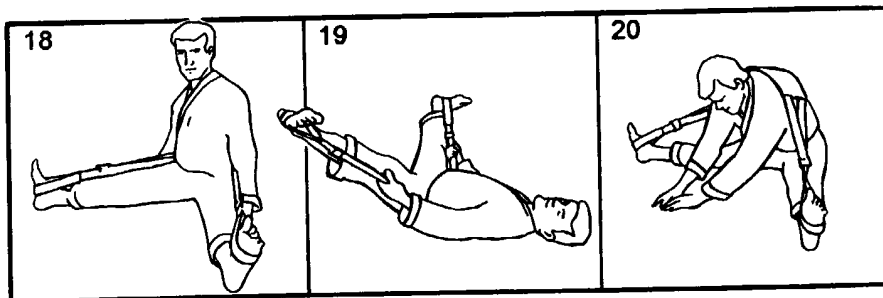
Stretching Exercises

- 1) Double Hamstring Stretch--Place the back pad on the low back with the loops over each foot. Keep legs straight--see Figure 15. This exercise stretches the large muscle groups at the back of the legs. To increase the intensity of the stretch without increasing the tension of the straps, try moving the loops up toward the toes thus drawing the foot backward. Another variation includes crossing your straight legs at the ankle.
- 2) Back and Hamstring Stretches--Raise the back support gradually up the back to include the back muscles in the stretch. The most advanced stretch of all the leg and back muscles is obtained by placing the back support at the shoulder level--see Figure 16. You can focus on one leg while including a back and side stretch by placing both loops over one foot as illustrated in Figure 17.

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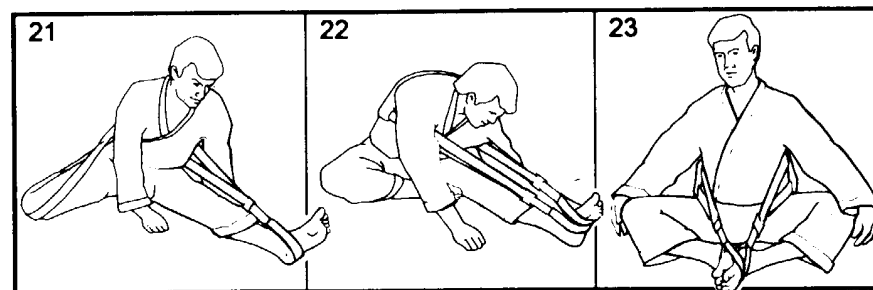


3) Splits can be accomplished by drawing legs apart and tightening the straps more. Experiment with methods illustrated in Figures 18, 19, and 20. The most advanced stretch for both back and inner legs is accomplished by the performing the forward bending splits--see Figure 20.



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4) The Hurdler's Stretch is accomplished by putting one loop over the knee (without the Stretch-Strap) and the other loop over the feet. The bent leg should be turned outward. By varying the placement of the back pad--see Figures 21 and 22--you can include back and side muscles in the stretch.



5) The adductors can be stretched using the method illustrated in Figure 23. The Stretch-Straps are not usually necessary to accomplish this stretch.

These are only the basic stretches from which a multitude of combinations and variations are possible.

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Common Questions and Answers

How do you know when you have the Back-Up® adjusted properly?

Like a good fitting pair of shoes, the Back-Up® should be snug and comfortable but not too tight. When well adjusted, you should not get a feeling of being pushed excessively forward but rather being gently balanced in an upright posture. Much of the adjustment is self-corrective--if you over-tighten the straps, you will feel uncomfortable in a short time. Experiment with tightening and loosening until you find the optimal comfort range for the most prolonged period.

How high should the back pad be on your back?

The placement of the back pad depends on what sitting position you are in, i.e., in a chair, cross-legged or on the ground with the knees up. Generally, if your knees are low, the back pad will be on the low back. During normal use in an office chair, the Back-Up® should span the lumbar spine with the back cushion approximately centered on the belt line. If the pad rides uncomfortably against your ribs, then you have the back pad too high. If your upper back seems to fall back, the back pad is

either too low or the straps too loose. Experiment until you find the most comfortable position for you.

Will the Back-Up® cut off circulation to the legs?

No, the circulation for the legs passes behind the knee. The pressure of the straps is placed on the upper shin bone that can take pressure without cutting off your circulation. However, it is important to remember that the circulation in the legs is greatly enhanced by movement. Thus, even though the Back-Up® makes it comfortable to sit for much longer periods, it is generally recommended to change positions and stretch the legs occasionally.

How long is it recommended to wear the Back-Up®?

The Back-Up's® benefits will be felt immediately and will continue as long as you wear it. Many have reported complete relief from a backache in just 2 to 5 minutes. To prevent the onset of low back fatigue at sitting jobs such as computer work, it is recommended to keep the Back-Up® on and vary the pressure on the straps to maximize comfort over prolonged periods. Using the waist belt will allow you to stretch your legs occasionally while keeping the Back-Up® in place on your back.

Will use of the Back-Up® weaken my back muscles over time?

No. The Back-Up®, like any back support, simply provides relief for back muscles that otherwise must work all day to keep you upright standing, walking or sitting. Just as you would never consider doing away with back supports on chairs simply because they allow the muscles to relax, there is no reason to expect that use of the Back-Up® will weaken your back muscles. Doctors indicate that the Back-Up® acts like an extra muscle to keep the back straight. For this reason, they recommend their patients use the Back-Up® to learn better posture.

How can I cross my legs while sitting in my chair?

To cross one leg over the other, simply unclip the knee buckle first. Sometimes it is required to readjust the straps slightly to maximize comfort.

Can I use the Back-Up® with a dress or skirt?

Use the Back-Up® with a dress the same way you would use it ordinarily. The only thing required with a dress or skirt is to tuck the fabric between your knees about three inches so that the straps can engage the knees properly. Usually the knee clip is

unnecessary because the fabric between the knees serves the same purpose.

Can you use the Back-Up® in a soft chair or a couch?

Yes, the Back-Up® will improve your posture even when you are sitting back in a soft chair or couch. The key here is not to tighten the straps as much as you would when using the Back-Up® as your sole support. Allow the chair back or couch to support the upper back and use the Back-Up® to simply add additional support to the lower back. This slight support is often all that is necessary to keep your back from aching in airline seats or other seats that grow painful over time.

How is the Lumbar-Jack® for driving different than the Back-Up®?

The Lumbar-Jack® engages the feet as well as the knees of the user with elasticized straps that allow free mobility of the legs while still supporting the lumbar spine. The support is not as firm as provided by the Back-Up® due to the elasticity of the straps and because it is designed only to be used with existing seat backs. Since the Lumbar-Jack® engages the feet, it is difficult to stand up without releasing the leg straps. It is specifically designed for driving and will not be as versatile as the Back-Up® for other uses.

Troubleshooting Guide

My knees begin to feel uncomfortable after a time--what should I do?

First of all, make sure to use the Cush-Shins when sitting for more prolonged periods. Generally, if you have been sitting long enough to feel the pressure on the knees as discomfort, it is time for you to get up or stretch your legs. Loosening the straps or taking off the Back-Up® for a few minutes will provide the relief necessary to permit wearing the it again for another period. As with any new product, there is a break-in period where one gradually develops tolerance to unfamiliar pressures over longer and longer periods.

On occasion I feel an uncomfortable pressure on my hip bones.

Sometimes there is discomfort created by the fact that belts, belt loops or other clothing bulges are being pressed against the hip bone. The only way to solve this is to hike your clothing up or down so it isn't compressed against your hip. If there is nothing interposed between the your back and the Back-Up®, try adjusting the pad up or down to relieve the pressure.

What can I do to prevent my legs from tingling and falling asleep when I sit yoga-style?

Sitting yoga-style is hard for two reasons, 1) the back is hard to keep in an upright posture and 2) the sharp bending of the legs can inhibit the proper flow of circulation to the legs. While the Back-Up® can help with the first problem, unfortunately the second is simply a matter of individual anatomy. Because the Back-Up® allows the back to feel comfortable for substantially longer periods, it is possible that you will sit long enough in one position to develop a new problem--your legs begin to tingle and fall asleep. This problem can simply be avoided by stretching the legs periodically to restore proper circulation.

Is the Back-Up® covered by medical insurance?

This all depends on the condition that is being treated and the insurance company in question. Many insurance companies will cover the expense as long as it is prescribed by your physician to remedy a back ailment. In the United States, you can tell your doctor to apply for coverage as a spinal orthosis under CPT Code 99070.

Back Mechanics

How does the Back-Up® work?

The Back-Up® works by using reverse pressure from the knees to stabilize your pelvis. Consider the pelvis as the pedestal for the spinal column. Just as any statue will fall if its pedestal is rocked off its base, the spine also slouches when the pelvis becomes unstable and rocks backward. This can best be illustrated by a simple experiment: Sit forward in a chair away from the back support. Now, alternatively slouch and sit up straight while observing the pelvis. You will notice that every time you slouch the pelvis rocks backward and when you sit straight the pelvis returns to its natural upright position. Now when the muscles that hold the pelvis in the upright position become fatigued, they give up and the pelvis drops backward causing the whole spine to slump. The Back-Up® works by securing the pelvis in its natural upright position thereby balancing the upper back on a stable foundation. If the low back is supported, the upper back automatically sits up straight. Meanwhile, tired back muscles are allowed to relax comfortably.

How is the Back-Up® different from other sitting supports?

The Back-Up® is an "ergo-dynamic" support. Where other sitting supports provide their benefit in a passive way, the Back-Up® is unique in the manner it provides dynamic and active support. This "ergo-quality" is based on your own body so it requires no external means such as a chair-back to keep you supported. Other back supports have to be sat on or against properly to get the support effect. In all cases, you immediately lose the feeling of support when you shift your weight forward or change your sitting position. The Back-Up®, by contrast, offers infinite adjustability that is based on your own body. This means that no matter what position you sit in, no matter what surface you sit on, no matter how long you sit, the Back-Up® will give you constant and variable back support exactly as you need it. We call this the "ergo-dynamic" benefit.

What are vertebrae and discs and why are they important?

Vertebrae are the small bones that stack like building blocks to form your spinal column. They start at your low back and end at your neck. The discs are the gel-filled cushion membranes between your vertebrae. Without discs, all your movements would grind bone on bone down your spine causing excruciating pain. The spine is naturally curved in a gentle S shape. The

curves of the spine and discs give spring to your movements and protect your nerves and spinal cord from injury when you walk, run or jump. With age, the discs lose their resiliency. Small cracks and tears (not unlike paper cuts on your finger) develop in the membrane enclosing the fluid. These tears and cracks will expand and open when the disc is compressed unevenly causing a painful sensation in your back.

Why does the Back-Up® feel so good when you put it on?

The Back-Up® can give an instant feeling of relief because it restores the natural position of the vertebrae and decompresses the discs. What happens to the discs when you slouch can be likened to what happens when you bite one side of a soft ice cream sandwich--the soft substance squeezes out the opposite side. The pain that you feel when slouching for long periods is due to the unnatural pressures that are squeezing one side of the disc. If this compression continues over a long enough time, discs can actually rupture.

What can I do to prevent back problems?

Maintain Proper Posture -- Sitting and standing without slouching can help relieve pain associated with back ailments. Also, sleeping on a firm mattress or lying flat on the floor can help.

Sit Smart -- Use the Back-Up® while sitting to maintain your best posture. Stand and stretch occasionally to let the discs "breathe". Movement enhances blood circulation which in turn nourishes the discs.

Weight Control -- With increased weight comes more stress on your back. It is reported that 10 pounds of extra weight on the stomach creates 100 pounds of extra stress on the spine. Keep your weight in check by exercising regularly and watching what you eat.

Keep a Tough Tummy -- Strong stomach muscles counteract stresses on the spine. Depending on your physical condition, stomach crunches and other exercises will build stomach strength and prevent back problems.

Maintain Flexibility -- Limber leg and back muscles will contribute to an overall healthy back. Daily stretching in the morning and/or evening will go a long way to keep you pain free.

Proper Body Mechanics -- When lifting, keep the load close to your body and bend at the knees keeping your back as straight as possible. Never twist and lift at the same time.

Washing and Care Instructions

The Back-Up® is made of durable poly-cotton fabric with closed cell foam cushions. The closed cell foam floats, so it doesn't work well to machine wash the Back-Up®. For best results, **hand wash** whenever necessary and **line dry**. DO NOT put the Back-Up® in the dryer because the foam will be damaged by the heat.

Important Note: Leaving the Back-Up® in a sun-baked car has been known to eventually harden and/or shrink the foam cushions.

International Distributors

USA & Int'l: Nada-Chair® int'l Hdqrs

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Australia & New Zealand: Ergo-Works, Ltd.

P. O. Box 307, Lindfield, NSW 2070, Australia
PH & FX: (02) 9880-8048

Hong Kong: Albury Co., Ltd.

2/F., Kar Wah House, 13-15 Fuk Wa St.,
Sham Shui Po, Kowloon, Hong Kong.
PH: (852) 2776 6331 FX: (852) 2788 1084

Patents and Trademarks

The Nada-Chair® Back-up® is a internationally patented product:

US #4773106, #5001791, #5083554, #5235714, UK #2233211,
NZ #232126, AUS #632084, ROC #54187, PRC #8920904.3x,
EP #0421045B1, DE #69013111T2, MEX #165130,
KOR #96761 Other Int'l Patents Pending.

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are registered trademarks of Nada-Concepts, Inc.

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One Year Limited Warranty

The Back-Up® is guaranteed to be free of defects in material and workmanship for a period of one year of normal use. If you experience any problems with the product during this time please contact the manufacturer and we will replace or repair the product at our discretion. Of course, the warranty does not cover misuse or damage done by intentional or accidental means.

Retain a copy of your sales receipt. This receipt will be necessary to obtain warranty replacement or repair. In the case you were given this product as a gift or were not issued a receipt by the vendor, please fill out and return the warranty card below. We will keep this as a record of your purchase.

Nada-Concepts, Inc. cannot assume any responsibility, special, indirect, or consequential damages, or contingent liability for use of this product in a manner not expressly intended by the manufacturer.

Warranty Card & Proof of Purchase

Name: _____
Address: _____
City/State/Zip: _____
Phone: () _____
Where Purchased: _____
Date: _____

Please give us your comments, suggestions & endorsements in the space below. By signing this card, you authorize us to freely use your endorsements in our promotions and your suggestions to improve our products.

Great product! Please send catalogues to my friends at the addresses below:

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