CENTER OF ASSISTIVE TECHNOLOGY

CATALOGUE

CITY OF COPENHAGEN

ASSISTIVE TECHNOLOGY EXHIBITION
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>3</td>
</tr>
<tr>
<td>Think ahead!</td>
<td>4</td>
</tr>
<tr>
<td>My first assistive aid</td>
<td>5</td>
</tr>
<tr>
<td>Lighting when your vision becomes worse</td>
<td>6</td>
</tr>
<tr>
<td>Contact with the rest of the world</td>
<td>7</td>
</tr>
<tr>
<td>Shopping and going to the bank at home</td>
<td>8</td>
</tr>
<tr>
<td>Emmy's iPad</td>
<td>8</td>
</tr>
<tr>
<td>Security in daily life</td>
<td>9</td>
</tr>
<tr>
<td>Armchairs</td>
<td>10</td>
</tr>
<tr>
<td>Take care of your joints</td>
<td>11</td>
</tr>
<tr>
<td>Avoid falls</td>
<td>12</td>
</tr>
<tr>
<td>A good night's sleep</td>
<td>13</td>
</tr>
<tr>
<td>Night lighting</td>
<td>13</td>
</tr>
<tr>
<td>A good mattress</td>
<td>14</td>
</tr>
<tr>
<td>Skin ulcers and bedsores</td>
<td>14</td>
</tr>
<tr>
<td>Clothing</td>
<td>15</td>
</tr>
<tr>
<td>Assistive aids for bathroom and toilet</td>
<td>16</td>
</tr>
<tr>
<td>Non-slip solutions</td>
<td>17</td>
</tr>
<tr>
<td>Toilet with washing and drying function</td>
<td>17</td>
</tr>
<tr>
<td>Medicine</td>
<td>18</td>
</tr>
<tr>
<td>Avoid fire</td>
<td>19</td>
</tr>
<tr>
<td>Assistive listening technologies</td>
<td>20</td>
</tr>
<tr>
<td>Assistive technology for the visually impaired</td>
<td>21</td>
</tr>
<tr>
<td>Bicycles and electric scooters</td>
<td>22</td>
</tr>
<tr>
<td>Wheelchairs</td>
<td>22</td>
</tr>
<tr>
<td>Fundamental principles of the Danish disability policy</td>
<td>23</td>
</tr>
<tr>
<td>Assistive technology terms</td>
<td>24</td>
</tr>
<tr>
<td>Assistive technology - what does the law say?</td>
<td>25</td>
</tr>
<tr>
<td>Consumer goods - what does the law say?</td>
<td>26</td>
</tr>
<tr>
<td>Interior design - what does the law say?</td>
<td>27</td>
</tr>
<tr>
<td>Assistive technology of the future</td>
<td>28</td>
</tr>
<tr>
<td>The Danish assistive technology industry</td>
<td>29</td>
</tr>
<tr>
<td>Center of Assistive Technology</td>
<td>30</td>
</tr>
<tr>
<td>Useful links</td>
<td>32</td>
</tr>
</tbody>
</table>
Foreword

Welcome to the City of Copenhagen’s assistive technology exhibition.

The exhibition applies especially to citizens with minor disabilities and who still only have limited experience with using assistive technology. These are the citizens we would like to inspire so they can adapt in order to maintain an active and self-sufficient daily life for as long as possible.

Specialised assistive technology for children and electrical wheelchair users are not part of the exhibition. Generally, these users are already in contact with the Center of Assistive Technology’s special consulting and can always direct enquiries there and get the advice they need.

The exhibition catalogue features the posters the visitor come across at the exhibition and is intended to support the dialogue between the caregiver or caseworker and the citizens before or after they visit the exhibition.

The texts focus on good advice and general information. If you are looking for information on specific assistive aids, we refer you to HMI-basen.dk/en. At HMI-basen.dk/en you will also find lists of relevant assistive technology for special diagnosis groups. The assistive technology in the exhibition are all labelled with name, distributor, HMI number and classification code for information on the assistive technology in the HMI base.

Many students and foreigners visit the exhibition. Therefore, we also present the field of assistive technology in a broad perspective and provide information on, e.g. legislation and assistive technology of the future.

Enjoy reading!

Center of Assistive Technology
Think ahead!

You can do a lot to keep both your body and your mind in good shape as you get older. However, at some point the majority of people find that there are things that are not so easy to do anymore.

Often this is a case of an accident of fall or sudden illness, which means that over a short period you lose functional capacity and have difficulty managing. Suddenly there can be many things you need to think about.

It’s a good idea to learn how to use new technology and new ways in which to do things while you have the energy and capability.

For example, you could learn to shop or do your banking on the internet, consider adjusting the layout of your home or purchasing a robot vacuum cleaner or other practical appliances.

The exhibition shows various solutions which we hope will inspire you.
"No, it wasn’t really difficult to get used to it. If you feel you need something like this, then you just use it."

That’s how 92-year old Erik explains his experiences of having an assistive aid he constantly uses. The walker has been a part of Erik’s life for 15 years since he was admitted to hospital with neuritis.

At home in his apartment in Østerbro, Erik manages with an adjustable walking frame because there really isn’t enough space for the walker in the apartment. But when Erik goes for a walk, the walker is always used. Erik goes to gymnastics three times a week in the Rosengade Activity Centre.

"It’s all about keeping yourself active. If you just sit down and don’t do anything, well then, suddenly you can do even less,” says Erik.

At the centre, Erik also maintains the strength in his legs by walking up and down the centre’s corridors with the walker.

"I didn’t think much about it before, but your legs are basically something you cannot do without. Being able to move from place to place, that’s important to me."

And nothing indicates that despite his 92 years Erik intends to slow down for the time being.

"I expect to become 120 years old. Now that I’ve come so close to being 100, I need to set a new goal for myself,” he laughs.
Your eyes and your vision change with age and you will need more and better light. You can do a lot yourself to help your eyes. Start by buying a pair of inexpensive reading glasses and use brighter bulbs in your lamps. If you become seriously visually impaired, there are many assistive aids that can help you.

**Good advice for lighting in the home**
- Furnish your home with sufficient light and pay special attention to lighting in the places where you will read and work, e.g., in your kitchen.
- Ensure that you have background lighting, good reading light and ambient lighting.
- Have an even distribution of light in all rooms so you avoid dark areas where you can hardly see.
- Use dimmers on main sources of light, e.g., dining table light so you can adjust the intensity of light.
- Choose lamps based on whether they provide good and sufficient light - not just from the design.
- Ensure you have good lighting at the entrance to your home so it feels safe to come home after dark.
Contact with the rest of the world

Having impaired walking and lack of strength does not mean that maintaining contact with your acquaintances has to come to an end. You can keep in touch with friends and family without leaving your home.

**Telephones**
Both land line phones and mobile phones are available in models that are suitable for people who are visually impaired or who have limited finger motor function. The telephones have large keys, reader-friendly screens and extra loud volume. Mobile phones are especially practical because they can be taken everywhere with you. If you choose a smartphone, you will also have access to the internet from your telephone.

**Facebook**
If you have access to the internet, you can create a profile on Facebook for free. Facebook is a social media that gives you the opportunity to keep up to date on your grandchildren’s lives and to get in touch with old friends.

**Skype**
If you would rather speak to your friends face-to-face, you can download the Skype programme. With Skype, you can chat for free and also see each other on the computer screen.

**Computers that are easy to use**
If you find it difficult to start using the internet, you can purchase a dukaPC. This is a user-friendly computer that helps you enjoy the many possibilities of the internet, even though you may never have used a computer before.
Do your shopping and banking at home

Do you have internet at home and are you used to using it? Then you are equipped for situations when you don’t have the possibility of leaving your home.

Digital development moves fast. There will be more and more things you will have difficulty doing if you do not have access to the internet.

On the internet you can organise your banking, do your shopping, read the news, contact public authorities, keep in touch with family and friends, meet new people and much more.

You can learn more about the possibilities of the internet on courses at the adult education associations, the DaneAge Association and the municipality’s activity centres.

Emmy’s iPad

Even though you are 92-years old and have never used the internet before, you can easily buy an iPad. At least Emmy Andersen can.

To begin with she bought the small, flat tablet computer so she could read her newspaper on it.

"It’s because all those large newspapers irritated me. I’m not so young any more, so it’s nice that I don’t have to haul those heavy paper newspapers around every day.

It’s easier to page through on the iPad and find the articles she thinks are interesting. And as she says:

"We need to realise that the use of paper is slowly disappearing and you need to keep up and learn the new things."

Now Emmy also uses her iPad to solve crossword puzzles. It helps her to find the correct words.

Emmy would like to learn to use the iPad in more situations, so at the moment she is attending classes at the Nørrebro Activity Centre. This is where she hopes to learn how to do internet banking.

"And I have some friends in Jutland. I would like to keep in touch with them over the internet," she says.

For others who are considering buying a computer or a tablet, Emmy has the following advice:

"You should try it. It can’t go that wrong. You could perhaps figure it out. And I think it’s exciting if you can. It opens up a lot of possibilities. Sadly I can’t go for walks or cycle any longer, but now I can do something else."
Security in daily life

If your health becomes worse, your ability to walk declines or you have problems with dizziness, you may have a need for extra security.

Mobile phone
If you have a mobile phone on you, you can easily call for help if something were to happen. It’s a good idea to code important telephone numbers into the phone so it is easier to make the call.

Security call
At DaneAge Association you can register for a scheme so that every morning you receive a call from a voluntary "security caller". You and the volunteer arrange between yourselves what needs to be done if you don’t answer the call.

Security alarm on the telephone
You can purchase mobile phones and land line phones that have a security alarm. The telephone has a special alarm button. When you push the button, your relatives are automatically notified, either by a telephone call or an SMS.

Emergency call
If you are at great risk of falling or if you have an illness that may require emergency help, you can be linked to the municipality’s emergency call scheme. This means you can quickly contact home care if you need emergency help.

If you would like to make use of the emergency call but are not in the target group for the municipality’s scheme, there are companies that offer private emergency call services.

GPS technology
Tracking technology is becoming more and more widespread. If you wear a small GPS transmitter, relatives can keep an eye on where you are. You can also push an alarm button if you need help.
Armchairs

Armchairs are available in many different designs and with various functions. Some have backrests that can be tilted, some have built-in footrests and some have electrical functions. The prices vary greatly.

If you have difficulty sitting down or getting up from the chair, an armchair with a catapult function is a good solution. It supports you when you need to sit down or get up.

Good advice when buying an armchair:

- It must be easy to sit down and get up from the chair.
- There must be room to put one leg slightly underneath the chair when you get up.
- The chair must be of a height that makes it easy to get out of the chair, but also low enough so you can touch the floor with the soles of your feet.
- The small of the back must be able to reach the backrest in order to have optimal support when you are sitting down.
- The armrests must be broad enough so that you can support your underarms on them.
- Take your time trying out the chair.

Only in special cases where, for example, the armchair is used throughout the day instead of a bed or wheelchair, is the municipality able to provide support for the purchase of an armchair.
Take care of your joints

If you have weak or painful joints, it can be difficult to cope with daily chores.

If you learn to use your joints in the correct way, you prevent pain and incorrect movements.

Here are some good tips on how you can relieve your joints when working in the kitchen:

- Avoid straining your joints. Switch between different positions and movements and remember to take breaks.
- Lift with both hands.
- Buy light weight kitchen utensils.
- Use kitchen utensils that have broad, thick handles that are easy to grip.
- If screw tops, tins or milk cartons are difficult to open, you can buy various openers that ease the task.
- A Fix preparation board that helps you keep foods fixed firmly on the cutting board while you cut.
- Boil your food in a pot with a basket sieve. Then all you do is lift the sieve out of the pot instead of pouring the boiling water out.
- If it is necessary to replace your tap anyway, then it is a good idea to choose one with a large grip or one with a sensor.
- A trolley is a great help when, for example, you need to move things. Preferably choose one that is height adjustable.
  Alternatively, you could use a basket. Avoid using trays.
Avoid falls

With age, we lose bone strength and the risk of fractures increases.

Exercise and vitamin and calcium supplements can keep bones healthy.
If you experience problems with dizziness, it is a good idea to speak to your general practitioner about what can be done.

**Furnishing the home**
- Make sure you have good lighting, both inside and outside, at night and in the daytime. Switch on the light - don't walk about in the dark!
- Avoid loose carpets or electrical cords that you could trip over.
- Ensure you have plenty space to move around at home.
- Choose furniture that can give you stable support as you move around at home.
- Avoid loose electrical cords on the floor.
- Buy a mobile phone and carry it with you at all times so you don't need to hurry to answer the phone.
- Have doorsteps removed and/or handles installed by the doors.

**Moving about**
The best way to protect yourself against falling is to keep your body in good condition. Therefore, it is important that you are as active as possible in your daily life.

- Train your muscles and your balance.
- Do exercises, use the stairs, go for a walk and keep active every day.
- Choose stable footwear. Shoes with course rubber soles and heel counters are the safest.
- Use cane or walker so you can remain active, even though you experience problems with your balance or your walking becomes more impaired.

**Protect the hips**
A serious consequence of a fall can be a hip fracture. A hip protector is shock-absorbing and functions as a "crash helmet" for the hips.
A good night's sleep

It is important that you lie comfortably. Otherwise you risk sleeping badly and having backache, pain in your joints and the rest of your body, especially if you spend a lot of time in bed.

If your body shape changes or you begin having problems with joint pain, it may be necessary to consider getting a new bed or mattress. Also be aware that a mattress loses its good qualities over the years and has limited durability.

As a rule, a nursing care bed is granted in consideration of caregivers who need to care for a bedridden person, but can also be granted if it is necessary in order to get in and out of bed without assistance.

It is important to be able to change position and get in and out of the bed yourself:

- If your bed is too low for you to sit down and get up you can raise the bed by placing raising blocks under the bedlegs.
- Fit a rope ladder or a handle by the bed. This makes it easier to change from a lying position to a sitting position or to get out of bed.
- A bed with an elevation base helps when you need to get out of bed or sit up in bed. By raising the head or foot of the bed you can reduce the strain on the body when needed.
- Choose sheets or pyjamas in satin or another smooth material if you have difficulty turning in bed.

Night lighting

You have greater risk of falling or bumping into things when it’s dark and you are tired.

Therefore, it’s a good idea to have lights that help you move safely around your home at night.

- Buy a night light that can illuminate with a dimmed light all through the night.
- Choose LED bulbs. They save on power and can emit a weak or coloured light that is of least disturbance.
- LED lights are also available as string of lights that can be used to show the way to the toilet in the dark.
- Choose a lamp with remote control or movement sensor so the light can be switched on before you get out of bed.
A good mattress

A good mattress is a mattress that suits your body and your needs.

If you are to purchase a new bed or mattress, it is important that you take your time to try out the bed in the shop and get guidance from the professionals. Even so, it often takes a while before you can be sure that the bed is comfortable for you. Check whether the distributor offers a long-term right of exchange or return so you can take the bed home and try to sleep in it over an extended period.

When you need to try a new mattress, you can do the following:

- Lie on your back. Is the small of your back supported? The mattress must follow the shape of your back. If you feel an empty space under your back, then the mattress is too firm.
- Lie on your side. Do your shoulders and hips sink comfortably down into the mattress? The waist must be supported so the spine is level.
- Turn around. Is it easy for you to turn? If not, then the mattress is perhaps too soft.

Pressure ulcers and bedsores

When you lie down, the body’s weight pushes on those points that are supported by your mattress. The larger the surface that is supported, the less strain on the individual point.

If you spend a lot of time in bed and rarely change position, the points on the body that have the greatest strain will be exposed to pressure over a longer period of time. This can cause pressure ulcers.

Red marks and tenderness are the first signs of pressure ulcers.

Pressure ulcers often occur on shoulder blades, hips, buttocks and heels.

When signs of pressure ulcers appear, something must be done quickly. Contact your general physician or possibly your homecare assistant. The municipality provides special mattresses for the prevention or healing of pressure ulcers if you have pressure ulcers or have a high risk of developing them.
Good advice about clothing

It can be difficult to dress and undress when your joints begin to get stiff or if you have reduced balance.

- Sit down when dressing and undressing.
- Choose shoes without laces or with elastic laces.
- Your shoes should have good and solid soles that are stable to walk on.
- Choose instruments with an extended handle, e.g. a long shoehorn or a hairbrush with an extended grip so it is easier to reach.
- Clothing without buttons and zips are easier to put on and take off. For example, choose trousers with elastic waistband.
- If you have problems reaching down to put your socks on, you can use an assistive product for applying socks and pantihose.
- Use elastic socks that are easy to get your foot into.
- You can buy various kinds of tongs/grappers that can help you with, e.g. reaching clothing on the floor or for pulling your trousers up around your waist.
- If your fine motor control is tricky, then it can be difficult to close and open a zipper. You can buy a small extension that can be inserted into the zip pull tab. You can also buy a button closer.
Assistive aids for the bathroom and toilet

Toilet
You can buy toilets in various heights. Choose the height that suits your family best. It is important that you can reach the floor with the soles of your feet when sitting on the toilet.

If your toilet is too low, you can raise it with a base under the toilet or with a toilet seat insert, possibly with armrests. The toilet seat insert is fitted where the toilet seat is normally fitted and it makes it easier for you to sit down and get up from the toilet.

You can see toilets with a wash and dry function (bidet) further on in the exhibition.

Hand grips
If you have difficulty getting up or sitting down, a hand grip could be the solution.

If you are going on holiday or visiting friends, you can buy a hand grip with suction cups, which you can take with you and set up where it suits you. Choose a hand grip with an indicator so you can see that the grip is solidly in place.

Bath
If you have difficulty keeping your balance in the shower, it would be a good idea to buy or apply for a shower stool. The stool can be set to the required height without using tools. A shower stool with backrest is also available.

It can be difficult to get out of a bathtub especially if you are a little unsteady. If you have a bathtub, you can buy or apply for a bath board. A bath board is positioned across the bathtub and makes it easier and safer to bathe.

Small assistive aids
You can see a number of assistive aids for personal care and hygiene in the exhibition.
Non-slip solutions

A wet and slippery bathroom floor creates a great risk of falling - especially if you are already a little unsteady.

If you are at risk of falling, you can apply for support from the municipality to make your floors non-slip.

You can secure yourself against falls in several ways:
- Check carefully that you have removed soap remnants from the floor.
- A clean floor is a safer floor.
- You can make your floor non-slip with a non-slip coating. The coating is applied directly on top of the existing floor and can be purchased in many DIY centres.
- You can make your floor non-slip with a non-slip vinyl which resembles linoleum and is glued on top of the existing floor.

See examples of non-slip floors in the exhibition.

Toilet with washing and drying function

This toilet automatically washes and dries so you are not dependent on others when going to the toilet.

The toilet ensures good hygiene and can, among other things, prevent urinary tract infections.

The toilet can also function as a standard toilet if a spouse or guest does not want to use the rinsing function.

If you have plans to replace your toilet, you could consider buying a toilet with washing and drying function.

You can see the various solutions at the exhibition.

FACTS about the toilet with washing and drying function
- The toilet almost resembles a standard toilet.
- The toilet washes with an adjustable jet of water and then dries with a warm air-dryer.
- You can adjust the water pressure, duration, direction and temperature with a remote control.
- You flush the toilet in exactly the same way as you do a standard toilet.
- This toilet can be granted by the municipality if it can help you to go to the toilet on your own.
- The model which the city of Copenhagen grants will be mounted on top of the existing toilet bowl and requires an electrical outlet close by.
Taking medicine can be both bothersome and difficult to remember. Fortunately, help is available.

**Help to remember medicine**
If you have problems remembering to take your medicine at a specific time, your mobile phone can help you. You can register for an SMS service from the pharmacy. You can also set your mobile phone to sound an alarm when it is time to take your medicine.

**Help for dosage of medicine**
A dosage box helps you to maintain an overview of your pills so you know whether you have remembered to take your medicine. The pills are packed into the dosage box for one day or one week at a time.
You can buy a special pill box that beeps when it is time to take your medicine.

**Help for taking medicine**
If you have problems swallowing medicine, assistive technologies are available that can split or crush your pills. Be aware that not all pills should be split or crushed.
Prevention of fire accidents is important in all homes. With prevention, you can reduce the risk of an accident happening and also limit the damages if things go wrong anyway.

- Install smoke alarms and remember that the batteries need changing about once every year.
- Tell your neighbours that you have installed a smoke alarm so they are also aware of the alarm.
- Avoid loose-fitting or flammable clothing when you are around open fire, lit candles or are cooking on a gas stove.
- Replace old electrical appliances. New appliances are generally safer as they often switch themselves off after a while.
- Think about the easiest way out of your home in the event of a fire.
- Keep areas around stairs and passages free of clutter so you can get out quickly.
- If you smoke, consider buying a fire-resistant apron. A fire-resistant apron delays the development of a fire if an ember falls from your cigarette/cigar.
- Be aware that taking medicine or drinking alcohol can increase the risk of an ember falling from your cigarette without you noticing.
- Keep a glass of water next to you so you can quickly extinguish a small fire before it develops.
 Assistive hearing Technology

If a hearing aid does not solve your hearing problems, then assistive hearing technology could be a possibility.

If you need to purchase a new hearing aid, it is important to ensure that the hearing aid can be used together with assistive hearing technology.

Get support from the municipality
You can get help for hearing technology if they are essential to being able to manage your daily life.

Before you apply for an assistive hearing aid, it is a good idea to have your hearing checked by an ear specialist and clarify whether the problem can be remedied in another way, e.g. by adjusting or replacing your hearing aid.

Hearing therapy advice
At the City of Copenhagen, you can enquire at the Center for Specialundervisning for Voksne (Centre for Special Needs Education for Adults) and get advice about assistive hearing technology. Hearing therapists can also help you to use your hearing aid and guide you on how you can cope better with situations where you have difficulty hearing.

Communication
If your hearing loss gives you difficulties with telephone conversations, an amplifier telephone with extra volume function could be helpful.

If you for some reason are unable to use a hearing aid, a hearing amplifier might be an alternative. The hearing amplifier consists of headphones and a microphone to be held towards the person you want to hear. With the amplifier you can regulate the volume of the headphones to the level that suits you.

Induction loop devices
Induction loop devices are available at many public places and also for the home so the sound from the TV, for example, is amplified by the hearing aid. In this way you can hear the sound at the volume that suits you without needing to turn up the volume in the living room.

Alarm systems
Alarm systems are available that let you know when your phone is ringing or if someone is ringing the doorbell. The alarm signals are adapted to your needs and your situation. For example, the alarm unit can emit a flashing light, a loud sound or have a powerful vibration. Some alarm systems and hearing aids work together so the hearing aid emits a special tone when the doorbell is rung.
Assistive technology for the visually impaired

If you find that your vision is becoming poorer you should consult an optician, specialist optician or eye specialist.

Perhaps you need glasses or the strength of your current glasses needs to be changed.

If your vision is severely reduced or you have a special medically optical defined permanent eye disorder, you can get support for the necessary assistive aids so you can manage in daily life. You can obtain support for glasses, contact lenses or other assistive aids.

Optical assistive technology - magnifiers and CCTV
Many different kinds of magnifiers are available, e.g. hand-held magnifiers, magnifying spectacles or magnifying lamps that can be fitted onto the table.

If a magnifier does not provide sufficient magnification, a CCTV could be a solution. A CCTV consists of a camera and a screen that shows text or pictures in very large magnifications.

Be aware that on the internet and in many computer programmes, there is the option to have texts read aloud or to magnify the texts so you can read them more easily.

Optic-supporting assistive technology
Optic-supporting assistive technology are technology that are necessary in order to achieve better benefits from an optical visual assistive aid. This may be special lighting or a reading desk/manuscript holder, which helps to hold the reading material closer to the eyes when there is a need for a short reading distance.

Non-optical visual assistive technology
Non-optical visual assistive technology are, e.g. talking watches, indication equipment, mobility stick (white stick) audio book players or special kitchen utensils such as a talking scale.

Advice
At city of Copenhagen, you can enquire at the Centre for Special Needs Education for Adults if you need help to manage your daily life with impaired vision. The instructors can teach you how to get around in traffic with a visual disability and you can get help to furnish your home appropriately so you can continue to cope with daily chores yourself.
Tricycles and electric scooters

Reduced balance and being unsteady on your feet can make you lose the desire to cycle. Rather continue your active lifestyle with a tricycle.

**Tricycle**
If you usually cycle a lot in order to do your shopping and daily activities, for instance, you can apply to the municipality for support for a tricycle. You must pass a traffic safety test before the municipality will grant you the bicycle.

**Electric scooter**
An electric scooter is another transport option. In order to be granted an electric scooter you have to have a very poor ability to walk and the scooter must be important for the activities you have in daily life.

There is also a requirement that you pass a traffic safety test.

**If you are considering buying your own**
You have the option to rent a tricycle or an electric scooter from a private company. You can try it out for a longer period before you decide to buy. Consider storage possibilities. You are more than welcome to ask the therapists for further advice at the exhibition.

**Longer outings**
You have the possibility of taking your tricycle or electric scooter with you in the S-train, the metro or with Flex traffic.

Wheelchairs

With a wheelchair you can maintain an active life even though you no longer walk very well or have lost your ability to walk completely.

Wheelchairs have different designs all depending on the needs they must meet.

If your need is only to transport you from A to B where other people drive you to and from your destination and push the chair for you, there are wheelchairs available that are easy to fold up.

If you need to operate the chair yourself, there are many models available that can be adapted to your individual needs.

You can apply for a wheelchair if you find this necessary for your daily life.

**Rent a wheelchair**
If you only need a wheelchair now and again, for excursions and family visits for example, you can rent a wheelchair from a private company. Many museums and other attractions lend wheelchairs to visitors.
Until the 1950s the work in the disability area comprised mainly the establishment of special institutions in which people with disabilities spent their whole lives. A disability was considered a characteristic or deficiency of the individual and people with disabilities had to be protected from surrounding society and vice versa.

Through the 1950s this attitude was criticised as leading to isolation and separation. Instead, focus was placed on terms such as normalisation and integration and on equipping people with disabilities in order to overcome the difficulties of integration into surrounding society.

Since the 1970s attention has been focused on the interaction between disability and the organisation of surrounding society. For example, it is not enough to make up for a disability with a wheelchair if the access conditions do not provide for wheelchair access.

The disability policy now focuses on the need to support the individual and on the need to change and adapt the surroundings as well as the activities in society.

**Equal treatment and equal opportunity**

The focal point for today’s Danish disability policy is to ensure equal treatment and equal opportunity for people with disabilities alongside other citizens. The following principles are key elements in the disability policy:

**The solidarity principle**

Support measures must, as far as possible, be financed by the public via the tax system.

**The sector responsibility principle**

All sectors in society, e.g. housing, traffic, labour market, teaching and the health sector, are responsible for making the area accessible to citizens with disabilities.

**The compensation principle**

Persons with a disability must, as far as possible, be compensated for their disability so they can function on equal terms with other citizens.

The compensation requirement varies from person to person and from disability to disability. For example, the life situations for a 10-year old, a 30-year old and a 90-year old are vastly different and therefore also require different kinds of compensation.

Persons with a disability should not have to cover the extra costs that are a result of a reduced functional capacity. Conversely, the disabled person must pay for costs themselves which other people have. For example, there is self-payment corresponding to the price of ordinary footwear when you receive support for orthopaedic footwear.
Assistive technology terms

The legislation on the assistive technologies area uses the following terms:

**Technical assistive aids** are produced for persons with reduced functional capacity. For example, these are wheelchairs, walkers, walking sticks and shower stools. The municipality lends the assistive aid and it must be returned when there is no longer a need for it.

**Body-worn assistive aids** are, e.g. prosthetics, orthopaedic footwear, compression stockings, glasses and contact lenses for special eye disorders. These could also be disposable assistive aids such as diabetes and ostomy aids, diapers and catheters. The assistive aids are purchased from, e.g. a prosthetist, optician or other distributor.

**Consumer durables** are produced for the general public and can be purchased in ordinary shops. These are armchairs and electric scooters, for example. There are particularly strict requirements in order to be granted consumer durables and support is not provided for consumer durables that cost less than DKK 500.

**Usual household effects** are consumer durables that are so widespread that they are found in every household that may want them. For example, TVs, washing machines, computers, iPads and smartphones. As a basis, help cannot be provided for usual household effects according to the assistive technologies paragraphs.

**Layout and interior design** are changes in your home that make your home more suitable as a place to live. For example, the removal of doorsteps, setting up of hand grips, ramps or tip-up seats. Furnishings and fittings are fixed, i.e. they are solidly fixed onto walls, etc.

**Occupational assistive aids** are, for example, nursing care beds, lifts and shower stools that are necessary in order for the care personnel to perform their work in accordance with the regulations on the working environment. A no thank you to occupational assistive aids is also a no thank you to the help the aids are used for.
Assistive aids - what does the law say?

Assistive aids are manufactured for persons with reduced functional capacity. A distinction is made between technical and body-worn assistive aids. For example, technical assistive aids are wheelchairs, walkers, and shower stools. Body-worn assistive aids are orthopaedic footwear, prosthetics, ostomy, and diabetes assistive aids, for example.

The municipality provides support for assistive aids according to the regulations in section 112 in the Consolidation act on Social Service.

**Section 112.** The municipal council shall grant support for technical aids for persons with permanent impairment of physical or mental functional capacity where the aid
(i) will remedy the permanent effects of the functional impairment significantly;
(ii) will facilitate daily life in the home significantly; or
(iii) is necessary to enable the person to pursue an occupation.

**Facts**
- Legal requirements regarding permanence and essentiality must be met in order for support to be provided.
- Assistive aids are granted without consideration of the recipient's financial situation, income and wealth.
- Technical assistive aids are granted as a loan and must be returned after concluded use.
- Body-worn assistive aids are granted as a subsidy for the person to purchase the assistive aids from a distributor.
- The municipality grants the assistive aid that is the best suitable and cheapest.
- It is possible for the citizen to make use of free choice, i.e. choose another product or another supplier.
- Subsidy is not provided for assistive aids that are purchased before a grant is given.

**Assistive aids for temporary use**
The municipality only provides support for assistive aids when this concerns a permanent disability. If you need assistive aids for a shorter period, e.g. in connection with hospital treatment, you can borrow the necessary assistive aid from the hospital or rent the assistive aid from a private supplier.

**Purpose**
The purpose of granting assistive aids is so that persons with reduced physical or mental functional capacity will have the opportunity to lead as normal and independent life as possible and, to the greatest extent possible, become independent of others' help in daily life.
Consumer durables - what does the law say?

Consumer durables are manufactured with the general public as the target group and can be purchased in ordinary shops. These are, for example, armchairs, elevation beds and electric scooters.

The municipality provides subsidy for the purchase of consumer durables according to the regulations in section 113 of the Consolidation act on Social Service.

Section 113. The municipal council shall provide assistance for the purchase of consumer durables provided the conditions of section 112(1) have been met. Notwithstanding the aforesaid, assistance shall be granted for consumer durables normally found among the household effects in a home.

(2) Assistance shall only be provided where the cost exceeds DKK 500.

(3) The assistance shall amount to 50 per cent of the price of a general standard product.

(4) Where, as a result of the functional impairment, a consumer durable is required the cost of which exceeds the price of a general standard product, or where the functional impairment necessitates special fitting or device in respect of the consumer durable, the municipal authorities shall pay any necessary extra costs, cf. subsection (1) hereof.

(5) If the consumer durable serves exclusively as an aid for the purpose of compensating for the functional impairment, the municipal authorities shall pay the acquisition costs in full, cf. subsection (1) hereof. The consumer durable may be granted as a loan.

Facts

- Legal requirements regarding permanence and essentiality must be met in order for support to be provided
- Subsidy is not provided for consumer durables that are normally part of usual household effects, e.g. TV, computer or washing machine.
- The subsidy is granted without consideration of the recipient’s financial situation, income and wealth.
- The subsidy for the purchase of consumer durables comprises 50% of the standard price.
- The citizen purchases the consumer durables and subsequently owns it.
- In special cases where the consumer durables exclusively function as an assistive aid, the municipality will lend the consumer durables and pay the full purchase price. After concluded use, the consumer durables must be returned.
- Subsidy is not given for consumer durables that cost less than DKK 500.
- Subsidy is not provided for consumer durables that are purchased before a grant is given.

Purpose

The purpose of providing subsidy for consumer durables is so that persons with reduced physical or mental functional capacity will have the possibility to lead as far as possible a normal and independent life and, to the greatest extent possible, become independent of others’ help in daily life.
Layout and interior design - what does the law say?

Layout and interior design are, e.g. the removal of doorsteps, installation of hand grips, ramps and handrails or changes made to the kitchen or bathroom.

The municipality provides assistance for changes inside the home according to the regulations in section 116 of the Consolidation act on Social Service.

Section 116. The municipal council shall provide assistance for the layout and design of the homes of persons with permanently impaired physical or mental function where such layout or design is required to make the home better suited to accommodate the resident.

**Purpose**
The purpose of providing subsidy for layout and interior design is so that persons with reduced physical or mental functional capacity and his or her family will have the possibility to lead as normal a life as possible like other citizens of the same age and in the same situation.

**Facts**
- In order for the provision of support, the layout and interior design must ease a permanently reduced functional capacity and be necessary in order to make the home better suitable as a place to live for the person concerned.
- Layout and interior design must be permanently installed onto walls.
- The costs must be reasonable in relation to the achieved benefits of use and the time period in which the home is expected to be used.
- Assistance is not provided for layout and interior design that are of a refurbishment, ordinary maintenance or modernisation character, e.g. the fitting out of a shower cubicle in a home that does not already have a bathroom.
- Assistance is provided without consideration of the recipient’s financial situation, income and wealth.
- It is possible for the citizen to utilise free choice, i.e. choose other materials or another tradesman.
- In very special cases, assistance is provided to cover costs for the purchase of another home if it is not possible to make the existing home sufficiently suitable as a place to live.
- Assistance is not provided for layout and interior design or replacement of the home that are initiated before a grant is provided.
What will assistive technology of the future look like? Assistive technology is a broad term and development is going in many directions.

Smarter solutions for everyone
Time is money and in a busy day there is great demand for machines and fittings that make daily life easier and more comfortable. Washing machines, elevation beds, electric bicycles, electric toothbrushes, robot vacuum cleaners, smartphones, iPads, internet shopping, etc. have been developed to meet the demands of the general public, but they also make daily life easier for persons with reduced functional capacity.

Previously, programmes that could read aloud for blind people or help to find the way or remember important activities were very expensive. Today, much cheaper apps are available that can do the same things. With the app technology, assistive technology that previously only had a small target group, are now available to many.

Assistive technology targeted towards persons with reduced functional capacity
When it comes to developing assistive technology, which help persons with reduced functional capacity, there is particular focus on the following areas:

Dementia is a growing problem, which increases the demand for assistive technology that can help the user to navigate and remember. Assistive technology for obese people is another growth area. In addition, there are instances of IT being integrated into more assistive technology, e.g. computer-controlled leg prosthetics.

Assistive technology targeted towards care personnel
The question of how we continue to take care of the weakest, but use less tax money and personnel resources for the task, is a priority on society’s agenda. There is great demand for solutions that can make the task of caring more efficient and simultaneously ensure a good working environment.

For example, this could be various lifting aids or sensor and monitoring technology that sounds an alarm if the person who is being monitored has fallen, has a fever or needs help in another way. Another area is tele-care technology where one can attend to wounds or talk with the patient over the internet instead of using transport time to go to the patient’s home.

Cyborg technology
The most advanced solutions are cyborg technology, where the body and technology are linked together so the body gets to function ‘normally’. Today there are, e.g. hearing aid implants, pacemakers or insulin pumps. In the future, there could be arm or hand prosthetics that are connected to the body’s nerves so the brain can control the prosthetic.
The Danish assistive technology industry

The Danish assistive technology industry, the welfare industry and the health services have a good reputation around the world. There is international interest in the Danish model as best practice within welfare technology, nursing, care, etc.

Danish manufacturers convert knowledge into useful products, services and holistic solutions. The vision is to create greater mobility, independent lifestyle and increased quality of life for the elderly and disabled.

Design and user-driven innovation is a strength in the Danish assistive technology industry. There is a long tradition that product development takes place in close cooperation with the users and their organisations.

The industry association, The Danish Rehab Group, supports the knowledge of assistive technologies, services, nursing and hospital equipment as well as welfare technology solutions both nationally and internationally. This takes place through the holding of the trade fair, Health & Rehab Scandinavia and by participating in export drives, for example.

The assistive technology industry is an active and export-oriented industry. The turnover of the members of the Danish Rehab Group is at more than DKK 3 billion, of which export comprises approx. two-thirds. About 3,000 people ranging from engineers to care and therapy personnel are employed by the Danish Rehab Group members.
Center of Assistive Technology

When you are granted an assistive aid or layout and interior design from the city of Copenhagen, in the majority of cases, we at the Center of Assistive Technology will provide the assistance.

We are responsible for the purchase, delivery and repair of the technical assistive aids borrowed by the citizens.

Our carpenters perform minor interior alterations, such as, the installation of hand grips, handrails and tip-up seats or the removal of doorsteps.

More than 23,000 Copenhageners have borrowed one or more assistive aids from the Center of Assistive Technology. We have several thousands of different assistive aids in stock and can deliver with short notice when you have been granted an assistive aid.

Every day the Center of Assistive Technology delivers assistive aids to about 100 Copenhageners.

The special consulting team advises the municipality’s case workers when they need to find and adapt the optimal assistive aid. They are specialists in, e.g. adapting a wheelchair so the body is not incorrectly strained when one has paralysis and curvatures of the body and needs to sit in a wheelchair all day.

Ruth is a qualified occupational therapist and specialist in the adaptation of wheelchairs. She has many years’ experience in finding solutions for wheelchair users with special needs.

“Ensuring that the wheelchair fits and relieves the body correctly, requires good cooperation between the wheelchair user and the therapist and this can be hard work for both. So it is great when we succeed.”
When the assistive aids are granted in the municipality's computer systems, Torben and his colleagues at the warehouse can see the order and get busy 'picking' the aids from the shelves and pack them for transport.

Some assistive aids can be delivered as is. Others need to be set, assembled or tested before the drivers can transport them to the citizen.

"I test that it is the correct assistive aid and that it is in order before I make it ready for the drivers. We can't have assistive aids that don't work when they get to the people who will be using them."

If your assistive aid is broken, you just call the service team: They send a technician who ensures that your assistive aid is repaired.

Maja and her colleagues in the service team answer the call when you contact them with a problem you're having with your assistive aid.

"Often we need to be creative when finding a solution to the problem citizens call about. We need to get it to work. And we do. There may be assistive aids that need to be collected or repaired, or the hospitals that call about a citizen needing a specific assistive aid in order to be discharged. So it's all about acting fast so the citizen can go home."

John is a qualified industrial technician, but currently works as a wheelchair technician in the technical team. John is often the one who drives out and repairs the assistive aids.

"I meet many special people in my work. It makes me happy that people are happy when I go out and help them."
Useful links

ASSISTIVE TECHNOLOGY DATA DENMARK www.hmi-basen.dk/en

CENTRE FOR SPECIAL NEEDS EDUCATION FOR ADULTS (CSV) www.csv.kk.dk

THE INSTITUTE FOR THE BLIND AND PARTIALLY SIGHTED (IBOS) www.ibos.dk/english

THE COPENHAGEN SCHOOL FOR DYSLEXIA http://hokbh.dk/om_ho/in_english/

NOTA - NATIONAL LIBRARY FOR PEOPLE WITH DYSLEXIA www.nota.nu

LEGAL INFORMATION www.retsinformation.dk

CITY OF COPENHAGEN www.kk.dk

NATIONAL BOARD OF SOCIAL SERVICES www.socialstyrelsen.dk

THE MINISTRY OF CHILDREN, GENDER EQUALITY, INTEGRATION AND SOCIAL AFFAIRS www.sm.dk

DISABLED PEOPLES ORGANISATIONS DENMARK (DPOD) www.handicap.dk

DANEAGE ASSOCIATION www.aeldresagen.dk

PURCHASE AND RENTAL OF ASSISTIVE AIDS
These shops sell a broad range of assistive aids. Other distributors can be found via HMI-basen.dk

SENIORSHOP www.seniorshop.dk

SENIORLAND www.seniorland.dk

BJØRN NIELSEN www.bjoern-nielsen.dk

BUTIK KIK www.butikkik.dk