



AXA RISK PROTECTION PLAN

Trauma Information



INVESTMENTS INSURANCE
SUPERANNUATION

Be Life Confident



Contents

What is Trauma Protection?	1	Major Head Injury – Adult and Children’s Trauma.....	16
Trauma Buy Back Option	2	Major Organ Transplant – Adult and Children’s Trauma	17
Buy Back Benefit	3	Medically Acquired HIV.....	18
Alzheimer’s Disease & other Dementias	4	Motor Neurone Disease.....	18
Angioplasty	4	Multiple Sclerosis	19
Aplastic Anaemia – Adult and Children’s Trauma.....	5	Muscular Dystrophy	20
Benign Brain Tumour	6	Occupationally Acquired HIV.....	21
Blindness	6	Paralysis – includes Diplegia, Hemiplegia, Paraplegia and Quadriplegia – Adult and Children’s Trauma.....	21
Cancer (Malignant Tumours) – Adult and Children’s Trauma ..	7	Parkinson’s Disease.....	22
Cardiomyopathy	9	Pneumonectomy.....	23
Chronic Kidney Failure.....	9	Primary Pulmonary Hypertension.....	23
Chronic Liver Disease	10	Severe Burns – Adult and Children’s Trauma.....	24
Chronic Lung Disease.....	11	Stroke	24
Coma.....	11	Subacute Sclerosing Panencephalitis – Children’s Trauma ..	25
Coronary Artery Bypass Surgery.....	12	Surgery of the Aorta	25
Creutzfeldt-Jakob Disease	12	Viral Encephalitis – Children’s Trauma.....	26
Deafness.....	13	Activities of Daily Living	26
Encephalitis.....	13	25% impairment of whole person function.....	26
Heart Attack.....	14		
Heart Valve Surgery.....	14		
Loss of Capacity for Independent Living.....	15		
Loss of Limbs/Loss of Limbs & Sight – Adult and Children’s Trauma	15		
Loss of Speech	16		

What is Trauma Protection?

TRAUMA PROTECTION

Trauma Protection pays out a lump sum cash payment if you are diagnosed with one of the 38 specified major Illnesses or Injuries.

A serious Illness or Injury can result in unforeseen expenses for you and your family. The lump sum Trauma Protection payment may be used to help cover some of those expenses, such as medical treatment, rehabilitation expenses or to pay off your mortgage. This will help you focus on your recovery with financial peace of mind.



CHILDREN'S TRAUMA PROTECTION

Children's Trauma Protection provides a one-off cash payment of \$50,000 if the child is diagnosed with one of the 13 specified major Illnesses or Injuries.

The financial costs of your child being ill can add up; medical expenses, loss of income while caring for your child, childcare for other dependents or potential household modifications may be a few of these costs. Children's Trauma Protection can help to relieve some of the financial burden, and give you the freedom to concentrate on caring for your child.

Trauma Buy Back Option

Policy definition

If the Policy Schedule shows that you have selected this Option then the Proposer may restore the Life Insured's Sum Insured for Trauma Insurance to 75% of the level applying prior to the payment of the Trauma Benefit subject to the following conditions:

- a No further evidence of health will be required.
- b To exercise the Option you must notify us in writing within 30 days following the first anniversary of the date of payment of the Trauma Benefit (the Option Date). If this Option is not exercised in that time the Option will lapse.
- c Any special conditions, exclusions or loadings which were applied to the Trauma cover will be maintained and reflected in the restored Trauma cover Policy and the rates as appropriate.
- d No Benefit will be payable under the restored Trauma cover Policy if the Major Trauma claimed:
 - is the same as the original Trauma event, or
 - has occurred as a direct or indirect result of the original Trauma event, or
 - is a Stroke (including Paralysis as a result of a Cerebrovascular Accident) and the original Trauma event was a Cardiovascular Related Illness, or
 - is a cardiovascular event and the original event was a Cardiovascular Related Illness.

If you are subsequently diagnosed with a Major Trauma, we will pay a claim under the restored Trauma cover Policy provided the event arose after the Trauma cover was reinstated, subject to any of the other conditions of this Policy.

In the above paragraph, Cardiovascular Related Illness means any of Coronary Artery Bypass Surgery, Heart Attack, Heart Surgery, Cardiomyopathy, Open Heart Surgery, Out of Hospital Cardiac Arrest, Primary Pulmonary Hypertension (as defined).

This Option cannot be exercised if the Life Insured becomes eligible for, or receives, prior to the Option Date:

- a Total and Permanent Disablement Benefit or Terminal Illness Benefit; or
 - b a Partial Benefit
- for any condition.

This Option ceases at the Policy Anniversary preceding the Life Insured attaining age 70.

What policies does this Option apply to?

This Option applies to Stand Alone and Supplementary Trauma policies only.

How does this Option work?

This Option enables you to reinstate 75% of the Trauma Sum Insured one year after the payment of a Trauma claim without providing further health evidence.

Buy Back Benefit

Policy definition

If the total amount of the Trauma Benefit has been paid, then the Proposer may restore the Life Insured's Sum Insured for Life Insurance to the level applying prior to the payment of the Trauma Benefit subject to the following conditions:

- a No further evidence of health will be required.
- b To exercise the Option you must notify us in writing within 60 days following the first anniversary of the date of payment of the Trauma Benefit (the Option Date). If this Option is not exercised in that time the Option will lapse.
- c Any special conditions, exclusions or loadings which were applied to the Trauma cover may also be reflected in the restored Life cover Policy and the rates as appropriate.
- d This Option cannot be exercised if the Life Insured becomes eligible for a Terminal Illness Benefit prior to the Option Date.
- e The Life Insurance will be based on the age of the Life Insured and premium rates at the time the Sum Insured for the Life Insurance is restored.

This benefit ceases at the Policy Anniversary preceeding the Life Insured attaining age 70.

Which policies does this Benefit apply to?

This Benefit applies only to Supplementary Trauma on Life Protection policies.

How does this Benefit work?

Should the Policy Owner survive for one year after receiving a Major Trauma, Trauma Event or Critical Illness payment (other than a payment for Angioplasty), this built in Option allows the Policy Owner to reinstate their Life Protection up to the level they had prior to payment of the Trauma Benefit, without the need to provide further health evidence.

Alzheimer's Disease & other Dementias

Policy definition

A Partial Payment will be made on the unequivocal diagnosis of Alzheimer's Disease or Dementia certified by a consultant neurologist resulting in a significant cognitive impairment for which no other recognisable cause has been identified. The Partial Payment will be a one-off payment based on 10% of the Trauma Sum Insured up to a maximum of \$25,000.

The remainder of the Benefit shall be paid upon the condition resulting in a significant cognitive impairment to the extent that the Life Insured requires continual supervisory care. This must result in either:

- at least 25% permanent impairment of whole person function; or
- the permanent inability to perform independently at least one of the specified Activities of Daily Living.

Significant cognitive impairment is defined as a deterioration or loss of intellectual capacity as measured by clinical evidence and standardised testing.

How does the brain work?

The brain is a complex signalling system much like a computer. There's information coming in, information being processed and turned into memories, and information going out. All of this is accomplished by billions of nerve cells, each branching out and connecting with other nerve cells.

What is Alzheimer's Disease?

Alzheimer's Disease occurs where there is permanent irreversible failure of brain function resulting in significant cognitive impairment for which no other recognisable cause has been identified. This may result in a requirement for continual supervision to protect the Life Insured or others.

A Partial Payment will be paid on the certified diagnosis of the disease. Eventually it may be necessary for those with Alzheimer's Disease to require full time care and it is this advanced stage of the disease that AXA's Trauma Policy covers.

Risk factors

Risk factors for Alzheimer's are divided into those that are well established and others that are still considered only probable. None of the risk factors predict development of the disease, they simply suggest increased risk.

Well established factors include:

- increasing age;
- family history;
- environmental factors.

Probable factors include:

- increased use of medications for arthritis and leprosy;
- deficiency of antioxidants like vitamins A, C, and E;
- head injuries that result in the loss of consciousness;
- heart disease, stroke, and high blood pressure can all damage blood vessels that carry nutrients to the brain and may contribute to the development of Alzheimer's.

Dementia and Alzheimer's in New Zealand

Dementia affects over 30,000 people in New Zealand with one in twenty people over the age of 65 impacted.

Source: www.alzheimers.org.nz, 2006
www.everybody.co.nz, 2006

Angioplasty

Policy definition

The actual undergoing of Coronary Artery Balloon Angioplasty which is considered medically necessary by a cardiologist to correct narrowing or blockage of one or more arteries.

For this condition a Partial Payment of 10% of the Trauma Sum Insured to a maximum of \$25,000 is paid for the first instance of this condition. The Trauma Sum Insured shall reduce by the amount of the payment.

What is Angioplasty?

Coronary Artery Balloon Angioplasty is a method of opening blocked or narrowed arteries to improve blood flow to the heart.

continued ... 

The procedure involves creating space in the blocked artery by inserting and inflating a tiny balloon, which compresses some of the blocking plaque against the arterial wall. When the balloon is deflated and removed, the plaque still remains compressed, clearing space in the artery and improving blood flow.

Angioplasty procedures take from 30 minutes to three hours depending on the severity of the blockage. Patients can generally go home within a few days of the procedure.

Why a Partial Payment?

Since Angioplasty is a less invasive procedure than Bypass Surgery, it has less risk and a quicker recovery period than bypass. For this reason, the Benefit available for Angioplasty under AXA's Trauma Policy is a Partial Payment of 10% of the Amount of Benefit subject to a maximum of \$25,000.

Source: Heart Information Network, Angioplasty: A Patient Guide, 2001

Aplastic Anaemia

Policy definition (for Adult and Children's Trauma)

Irreversible bone marrow failure as confirmed by a consultant haematologist that results in anaemia, neutropenia and thrombocytopenia requiring treatment by at least one of the following:

- blood product transfusions;
- marrow stimulating agents;
- bone marrow transplantation;
- immunosuppressive agents.

What is Aplastic Anaemia?

Anaemia is a deficiency of red blood cells, which can lead to a lack of oxygen carrying ability, causing unusual tiredness and other symptoms. The deficiency occurs either through the reduced production or an accumulated loss of red blood cells.

Aplastic Anaemia may be congenital or acquired in later life. In around half of these latter cases exposure to a drug, a chemical agent or ionising radiation is responsible but in the remainder the cause remains obscure; in some it is thought that an autoimmune mechanism is involved.

Untreated Aplastic Anaemia leads to rapid death. 30 - 50% of all patients diagnosed with severe Aplastic Anaemia will die within six months regardless of therapy. With bone marrow transplantation, young people have an 80% long term survival rate with a 40 - 70% survival rate for older people.

Signs and severe symptoms of Aplastic Anaemia

Common signs are:

- irritability, tiredness and fatigue;
- dizziness and light-headedness;
- a rapid heart rate;
- easy bruising and tiny areas of bleeding in the skin;
- abnormal bleeding from the gums or nose.

How is it treated?

Treatment consists initially of the removal of any offending cause. Bone marrow transplantation is now the preferred treatment where a suitable sibling donor is available. While the risk of rejection still exists, this has been reduced with improved supportive care and earlier treatment of patients after diagnosis.

In cases where bone marrow transplantation is not suitable, treatment is by way of transfusions of platelets to prevent bleeding and of packed red blood cells to control symptoms of anaemia.

Corticosteroids have also been used with varying success.

What are the causes of children's Aplastic Anaemia?

In children, Aplastic Anaemia may be caused by an inherited genetic defect. More commonly anaemia is caused by exposure to certain toxic chemicals, radiation, or medications such as antibiotics. For some reason, children who develop anaemia after exposure to toxic chemicals seem to be unusually sensitive to the particular substance triggering the condition. In about half of all cases, Aplastic Anaemia has no apparent cause.

What are the chances of suffering from Aplastic Anaemia?

- In 2004, 288 people were treated for Aplastic Anaemia.
- In 2000/01, 153 people under the age of 20 were treated for Aplastic Anaemia.

Sources: NZ Health Information Service, 2004 provisional data.
The Nemours Foundation, Kidshealth.org, 2000
NZ Health Information Service, Selected Morbidity Data for Publicly Funded Hospitals, 2000/01

Benign Brain Tumour

Policy definition

A non-cancerous tumour in the brain that gives rise to characteristic symptoms of increased intracranial pressure such as papilledema, mental symptoms, seizures, sensory and motor impairment. This must result in either:

- at least 25% permanent impairment of whole body function; or
- the permanent inability to perform independently at least one of the specified Activities of Daily Living.

The presence of the underlying tumour must be confirmed by imaging studies such as CT scan or MRI (Magnetic Resonance Imaging). Cysts, granulomas malformations in or of the arteries or veins of the brain, haematomas and tumours in the pituitary gland or spine are excluded.

What makes up the brain?

The brain is a mass of nerve cells and supportive tissue. It has three major parts: the cerebrum, the cerebellum, and the brain stem. The parts work together with each having special functions.

The body is made up of many types of cells. Each type of cell has special functions. Most cells in the body grow and then divide in an orderly way to form new cells as they are needed to keep the body healthy and working properly.

What are Benign Brain Tumours?

When cells lose the ability to control their growth, they divide too often and without any order. The extra cells form a mass of tissue called a tumour. Tumours can be benign or malignant.

Unlike malignant tumours which are characterised by rapid and invasive growth, Benign Brain Tumours are essentially slow growing tumours that do not invade surrounding tissue or blood vessels. A Benign Brain Tumour may grow to a considerable size before it causes symptoms from pressing on sensitive areas of the brain. Usually these tumours can be removed, and they are not likely to recur.

Causes

The causes of brain tumours are not known. Researchers are trying to solve this problem. The more they can find out about the causes of brain tumours, the better the chances of finding ways to prevent them. Doctors cannot explain why one person gets a brain tumour and another doesn't.

Although brain tumours can occur at any age, studies show that they are most common in two age groups. The first group is children aged 3 to 12 years old, the second is adults aged 40 to 70 years old.

Symptoms of brain tumours

The symptoms of brain tumours depend mainly on their size and their location in the brain.

Symptoms are caused by damage to vital tissue and by pressure on the brain as the tumour grows within the limited space in the skull. They also may be caused by swelling and a build up of fluid around the tumour. Symptoms may also be due to hydrocephalus (water on the brain), which occurs when the tumour blocks the flow of cerebrospinal fluid and causes it to build up in the brain. If a brain tumour grows very slowly, its symptoms may appear so gradually that they are overlooked for a long time.

The most frequent symptoms of brain tumours include:

- headaches that tend to be worse in the morning and ease during the day;
- seizures (convulsions);
- nausea or vomiting;
- weakness or loss of feeling in the arms or legs;
- stumbling or lack of co-ordination in walking (ataxic gait);
- abnormal eye movements or changes in vision;
- drowsiness;
- changes in personality or memory, and
- changes in speech.

Source: National Cancer Institute, 2001

Blindness

Policy definition

Blindness means the permanent loss of sight in both eyes as a result of disease, illness or injury to the extent that visual acuity is 6/60 or less in both eyes, or to the extent that the visual field is reduced to 10 degrees or less arc irrespective of corrected visual acuity.

How the human eye works

The eye can be compared to a camera which gathers, focuses and transmits light through a lens to create an image of the environment. In the eye the image is created on the retina - a thin layer of light sensitive cells at the back of the eye. The lens of the eye bends, or refracts light that enters the eye.

continued ... →

The cornea, which is a clear, transparent covering in the front portion of the eye also contributes to focusing the light on the retina. Nerve fibres extending back from the retina's nerve cells come together behind the retina to form the optic nerve, a "cable" of nerve fibres connecting the eye with the brain. The optic nerve transmits messages about what we see from the eye to the brain.

Visual acuity and 20/20 vision

Visual acuity is the sharpness of vision determined by a person's ability to discriminate fine details and is measured using specially designed tests and charts. The most common chart uses letters of various sizes. The bottom line (the smallest letters) represents 20/20 (or normal) vision. The top line (largest letters) represents 20/200 vision - 20/200 vision means that from 20 feet the person can see what the average person can see from 200 feet.

Causes of Blindness

There are many causes of Blindness - accidents being the most common. Other causes include:

- cancer;
- head injury;
- diabetes complications;
- glaucoma;
- aging - the natural loss of eyesight over time.

How many New Zealanders suffer from Blindness?

There were 81,500 New Zealand adults who were blind or had sight limitations that could not be corrected by glasses or contact lenses in 2001. Of those adults 7800 were completely blind. Comparatively 2300 New Zealand children were blind.

Source: American Foundation for the Blind, 1999
 Statistics New Zealand, June 2002

Cancer (Malignant Tumours)

Policy definition (for Adult and Children's Trauma)

The occurrence of an invasive Malignant Tumour. Included will be leukaemia, lymphoma, Hodgkin's Disease and malignant melanomas of at least Clark Level 3 or 1.5mm Breslow thickness or greater, unless specified below:

The following are excluded:

- tumours classified as carcinoma in situ unless requiring surgery that results in the removal of the entire breast and the surgery is considered medically necessary to halt the spread of the diagnosed malignancy*;
- prostate tumours classified as T1 (all categories) under the TNM classification system and/or of an equivalent or lower classification;
- lymphocytic leukaemia less than Rai Stage 1;
- malignant melanomas and other skin cancers other than those specified above; and
- tumours that are a recurrence or metastases of a tumour that first occurred within the 90 Day Qualifying Period.

* Prophylactic surgery where there is a family history of breast cancer is specifically excluded.

Partial Payment (for Adult Trauma only)

A one-off Partial Payment of 10% of the Trauma Sum Insured to a maximum of \$25,000 for the first instance of the following Cancer conditions;

Female

- Diagnosis of carcinoma in situ of the breast, where the tumour is classified as TNM stage Tis. There is no requirement for the breast to be removed.
- Diagnosis of carcinoma in situ of the vulva, vagina or fallopian tube where by the tumour is classified as TNM stage Tis or FIGO stage 0.
- Diagnosis of carcinoma in situ of the cervix that is at TNM stage Tis or CIN 3 grading.
- Carcinoma in situ means focal new growth of malignant cells that have not yet invaded normal tissues and have been diagnosed by biopsy.

Male

- Prostate tumours classified as T1 (all categories) under the TNM classification system (or an equivalent classification).

AXA's Trauma Protection has been designed to cover specific Cancers that are in the earlier stages and have not yet invaded other tissue (Partial Payments) and the more serious life threatening forms of Cancer.

What is Cancer?

Cancer is not one but many different diseases. There are over 100 types of cancer that can be grouped into three main categories:

- Carcinomas, which occur in the lining of the body's external and internal surfaces like the skin or mouth.
- Sarcomas, which form in connective tissues like muscles and bones.
- Leukaemias and lymphomas, which are cancers of the bone marrow and lymph glands.

How does Cancer form?

Our bodies consist of billions of cells, which reproduce by dividing. Cells divide rapidly in childhood as we grow and develop, and they slow once reaching adulthood. If cells are damaged, new cells can grow to replace the damaged ones, for example kidney cells are able to grow as needed.

What all Cancers have in common is that some of the cells in the body become abnormal and for reasons not clearly understood, a cell is triggered into abnormal action. It starts dividing uncontrollably, creating a mass of abnormal cells which form into a tumour.

This tumour is further classified as being benign or malignant. Benign Tumours need to be removed but do not spread to other parts of the body, while Malignant Tumours invade and destroy normal tissue and form secondary growths or metastases.

Cancer and children

Unlike in adults where Cancers are often the result of a long biological process related to exposures with genetic and other external characteristics, in children, particularly infants, the genetic processes that fail to safeguard against cells with abnormal growth potential occur very early and progress very quickly.

Symptoms

Most of the time Cancer causes only some general symptoms, such as weight loss, fever, frequent illness, tiredness or swollen glands which can also be caused by other illnesses. Medical tests are needed to determine whether a person has Cancer.

Treating Cancer

Treatment choices depend on two things: the type of Cancer (the kind of abnormal cells causing the Cancer), and the stage of the tumour (if it has spread and how far). The three main methods are:

- surgery - where the cancer cells and sometimes surrounding healthy cells are removed;
- radiation therapy - using high energy waves such as x-rays to damage or destroy the cancer cells;
- chemotherapy - the use of anti-cancer medicines through an intravenous line or as pills. The medicine travels to all areas of the body through the blood. Chemotherapy is often used for Cancer that has spread from the primary site to other areas of the body.

Who is at risk?

Although Cancer can occur at any age, the chances increase as a person ages.

About 80% of all Cancers are thought to be related to lifestyle or environmental factors. Cigarette smoking is responsible for about 25% of all Cancer deaths in New Zealand. Approximately 1600 New Zealanders' are diagnosed with melanoma or skin cancer every year with around 200 dying from the disease. Avoidable causes of Cancer include dietary factors, physical activity and alcohol consumption.

Cancer in New Zealand

In 2000/01 1655 children and young adults under 20 were treated for Cancer. Of these, 74% (or 1227) were younger than ten.

In 2003 there were 18,586 new cancer registrations in New Zealand. Of those registrations, 53% were males. 41% of registrations were for people aged between 50 and 69 years old.

The top 4 sites of cancer are:

- lung;
- breast;
- prostate;
- skin.

Sources: Cancer Society of New Zealand, 2003
NZ Health Information Service, 2004 provisional data, 2006
NZ Health Information Service, Selected Morbidity Data for Publicly Funded Hospitals, 2000/01

Cardiomyopathy

Policy definition

The impairment of the ventricular function of variable aetiology resulting in significant and irreversible physical impairment to the degree of at least Class 3 of the New York Heart Association of cardiac impairment and resulting in the permanent incapacity to work.

What is Cardiomyopathy?

Cardiomyopathy is a serious disease in which the heart muscle becomes inflamed and doesn't work as well as it should. There may be multiple causes including viral infections.

Cardiomyopathy can be classified as primary or secondary. Primary Cardiomyopathy can't be attributed to a specific cause, such as hypertension, heart valve disease, artery diseases or congenital heart defects. Secondary Cardiomyopathy is due to specific causes and is often associated with diseases involving other organs as well as the heart.

There are three types of Cardiomyopathy: Hypertrophic, Dilated and Restrictive. The main feature of Hypertrophic Cardiomyopathy is an excessive thickening of the heart muscle (hypertrophy meaning to thicken). The heart muscle may thicken in normal individuals as a result of high blood pressure or prolonged athletic training. In Hypertrophic Cardiomyopathy (HCM), however, the muscle thickening occurs without an obvious cause.

Dilated Cardiomyopathy is the most common form of Cardiomyopathy. Also called Congestive Cardiomyopathy, it affects the ventricles of the heart by weakening their walls.

Restrictive Cardiomyopathy is characterised by a restriction to the inflow of blood into one or both ventricles of the heart. The thickness of the heart muscle and the size of the cavities are usually normal.

What are the symptoms?

There may be no obvious symptoms and often the occurrence of this condition is only picked up upon medical examination. However, other indications may be:

- shortness of breath;
- chest pain;
- palpitations;
- light headedness & blackouts.

An individual who rates as Class 3 of the New York Heart Association classification of cardiac impairment will have marked limitations on activity due to the symptoms and even during less than ordinary levels of activity. AXA's Trauma Protection product is designed to cover this advanced stage.

What treatment is available?

Most treatments will be drug-based. In more serious cases a transplant may be considered.

How many people suffer from Cardiomyopathy?

In 2004, 198 people in New Zealand died from Cardiomyopathy, with 73% of those being male.

Source: American Heart Association, 2001
Hypertrophic Cardiomyopathy Association, 2001
NZ Health Information Service 2004 provisional data, 2006

Chronic Kidney Failure

Policy definition

Chronic irreversible failure of both kidneys requiring either permanent renal dialysis or kidney transplantation.

What is Chronic or End Stage Kidney Failure?

The kidneys remove waste products and excess water from blood, in the process making urine. Kidney failure occurs when the kidneys are no longer able to clean the blood of the body's waste products. Without replacement therapy kidney patients would die.

Causes:

The most common causes are:

- diabetes;
- reflux nephropathy;
- long standing high blood pressure;
- polycystic kidneys.

Less common disorders include:

- damage from kidney stones;
- regular ingestion of some varieties of pain killers;
- obstructions in the urinary passages.

continued ... →

What are the symptoms?

There may be no obvious symptoms until the kidneys are almost destroyed. A vague 'run down' feeling, loss of appetite and nausea, shortness of breath on effort, chest pains and itchiness are generally late in appearing - few people would associate these with their kidneys.

What treatment is available?

Dialysis - the function of the kidneys can be replaced by dialysis, or 'blood washing'. People are encouraged to use a dialysis machine at home and have three treatments a week, each of five to seven hours. AXAs Trauma Protection is designed to cover those people who would require permanent dialysis.

Transplantation - many people eventually have a transplant. Kidneys that are donated for transplantation either come from people who have died in a hospital intensive care units, usually as a result of an accident or severe stroke, or from living donors.

Chronic Kidney Disease in New Zealand

- 43% of all patients requiring renal replacement therapy do so due to diabetes.
- The cost of dialysis is estimated to be \$50,000 per patient per annum.
- 245 Kidney transplants were completed in New Zealand in the past four years.

Source: National Kidney Foundation of New Zealand, 2006
Australia and New Zealand Organ Donation Registry, 2006.

Chronic Liver Disease

Policy definition

Chronic Liver Disease resulting in cirrhosis and with all of the following features:

- permanent jaundice (the serum bilirubin must be continuously over 50mmol/L);
- portal hypertension; and
- ascites or encephalopathy or hepatorenal syndrome.

What does the liver do?

The liver is the largest organ in the body, occupying the right hand upper portion of the abdominal cavity between the diaphragm and the large intestine.

The liver secretes bile, forms and stores glycogen and a number of other important chemical substances, and it forms, from the breakdown of protein, urea which is eventually excreted in the urine. Additional functions of the liver include the formation of uric acid, detoxification of bacterial and mineral poisons, and the absorption, modification or excretion of foreign materials (e.g. drugs).

The liver plays an important part in carbohydrate, protein, lipid, bile and drug metabolism, and hepatic disease may be associated with derangement of one or more of these functions. Since the liver has exceptional power of regeneration and of recovery from damage, AXAs Trauma Protection only covers Chronic Liver Disease.

Cirrhosis is the replacement of normal liver tissue by bands of fibrous tissue which separate nodules of regenerated liver cells.

Jaundice is a symptom characterised by yellowish colouration of the skin, mucous membranes and tissues by bile pigments due to the build up of bilirubin. Bilirubin is a pigment that is one of the end products of haemoglobin (oxygen carrying substance in red blood cells) breakdown and is excreted from the bile ducts.

Portal hypertension is a serious condition which may arise from a number of different causes, the most common being cirrhosis of the liver. The portal vein is formed by the union of several veins that convey blood to the liver from the spleen and the gastrointestinal tract.

Ascites is an abnormal accumulation of fluid in the abdominal space due to the failure of the liver to produce the protein albumin.

Encephalopathy is a metabolic state of ammonia intoxication of the brain due to liver disease. It may lead to a disturbance of consciousness and deteriorating mental processes.

How many people suffer from Chronic Liver Disease?

- 1226 people were treated for Liver Disease in 2000/01.
- 58% of these cases were males with the highest number of cases being reported in the 40-60 age group.
- 257 cases of Liver Disease were related to alcohol.

Source: Centre for Disease Control and Prevention, 1999
Selected Morbidity Data for Publicly Funded Hospitals 2000/01,
NZ Health Information Service

Chronic Lung Disease

Policy definition

Chronic Lung Disease confirmed by a specialist requiring permanent supplementary oxygen. For the purposes of this definition, the criteria for requiring supplementary oxygen will be an arterial blood oxygen partial pressure of 55mmol/L or less, whilst breathing room air and dyspnoea at rest.

What causes Lung Disease?

Deoxygenated blood is carried to the lungs by the pulmonary arteries and air is carried to the lungs by the bronchi, which divide into fine tubes known as bronchioles, terminating in small sacks called alveoli, which contain capillary blood vessels.

Here gaseous exchange takes place. Carbon dioxide is discharged into the alveoli, and oxygen, combining with the haemoglobin in the red cells of the blood is returned to the heart through the pulmonary veins.

When the alveoli or pulmonary veins are damaged due to disease or environmental factors such as smoking, the gaseous exchange is less efficient and the lungs need to work harder to replace the oxygen in the blood.

The lungs are subject to a number of diseases such as:

- abcess;
- bronchitis;
- emphysema;
- emphema;
- pleurisy;
- pneumonia;
- tuberculosis.

AXA's Trauma Protection product covers Chronic Lung Disease where the lungs are so damaged that the proportion of oxygen in blood in the arteries is so diminished that additional oxygen has to be supplied from an external source.

Who suffers from Lung Disease?

466 people were treated for Lung Disease caused by external agents in 2000/01.

62% of these cases were males.

Source: Centre for Disease Control and Prevention, 1999
American Lung Association, 2000
Selected Morbidity Data for Publicly Funded Hospitals 2000/01,
NZ Health Information Service

Coma

Policy definition

The failure of cerebral function as shown by total unarousable unresponsiveness to all external stimuli persisting continuously with the use of a life support system for a period of at least three days. Coma directly resulting from alcohol or drug abuse is excluded.

What is Coma?

Coma is a state of brain function. The human brain performs at different levels of consciousness. At the highest level of performance the mind is perceived as alert, sharp and quick to respond to varying forms of stimuli. Through a gentle phasing down, the brain may become progressively less responsive until, at the lowest level of function, the brain is in a state of Coma. This state most frequently occurs abruptly rather than in phases, and may be followed by a progressive recovery.

Each year, many people suffer from a brain injury often resulting in a Coma. The period of time in Coma state can be brief or extend to weeks, months or years.

Motor vehicle accidents are the major cause of Coma.

Following the initial goal of arousal from Coma lies a long road toward optimal rehabilitation. This process, faced by both the patient and the family, addresses many of the effects of prolonged Coma: intellectual impairment, speech problems, behavioural changes and a variety of physical disabilities.

Since this process can continue for years, the need for help in coping with the stress of such long-term care-giving is very real.

AXA's Trauma Protection will provide a lump sum for your client and their family to be able to cope with additional financial pressures during the recovery process.

Source: Coma Recovery Association, 2006

Coronary Artery Bypass Surgery

Policy definition

Coronary Artery Bypass grafting Surgery which is considered medically necessary to treat coronary artery disease, but does not include:

- Angioplasty;
- intra-arterial procedures;
- laser techniques;
- other non-surgical techniques.

Why you could need surgery

Coronary arteries can become narrowed with the deposit of fatty or calcified material on the inside of the artery. Once this fatty build up has developed, there may be a further narrowing of the coronary arteries by the formation of a blood clot. When blood flow to the heart muscle is stopped or slowed a person will develop chest pain, have angina, or suffer a Heart Attack. The procedure to remedy the narrowed or blocked coronary arteries is known as Coronary Artery Bypass grafting Surgery.

The surgical procedure

Coronary Artery Bypass grafting Surgery is an operation designed to detour blood around a narrowed segment of a heart artery in an effort to restore blood flow to the heart muscle. Usually a vein graft from the leg or an artery from the chest is used for the bypass.

The operation takes approximately three to six hours depending on its complexity. An incision along the midline of the chest through the breast bone is used. The bypass is accomplished by attaching the vein (taken from elsewhere in the body) or internal mammary artery to the site of the blockage in the diseased artery.

As the breast bone is cut through, it can take up to six or eight weeks for the breast bone to heal completely again. Weakness is a common feeling on returning home due to lack of use of big muscles. Exercise, such as walking, is a good way to help regain muscle strength. Sedentary workers may have to wait four to six weeks before returning to work.

There are several newer, less invasive techniques for Bypass Surgery that can be used instead of open chest surgery. Keyhole procedures or minimally invasive procedures use several smaller openings in the chest and may or may not require a heart lung machine.

Coronary Artery Surgery in New Zealand

In 2003 there were 5451 people admitted to public hospitals in New Zealand for Coronary Artery Bypass grafting Surgery. Their average length of stay in hospital was seven days.

Sources: YourSurgery.Com, 2000
New Zealand Treasury, Investigating Health Technology Diffusion in New Zealand, July 2006.

Creutzfeldt-Jakob Disease

Policy definition

The certain diagnosis of Creutzfeldt-Jakob Disease where such a diagnosis has been documented by the occurrence of cerebellar dysfunction with associated progressive dementia, uncontrolled muscle spasms, tremors and athetosis, requiring continual and permanent medical supervision.

What is Creutzfeldt-Jakob Disease?

Creutzfeldt-Jakob Disease (CJD and sometimes known as Mad Cow Disease) is caused by an infection of the brain, probably by a particle called a prion. The disease causes fatal breaking down of brain tissue and produces a dementia that affects men and women, often between the ages of 50 and 65. Some 90 percent of cases progress to death within one year, sometimes within one month. The remaining ten percent of cases develop dementia and may slowly decline over several years. There is no record of anyone recovering from the disease and there is no known treatment.

Although the condition is rare, once contracted it is very serious for the individual concerned.

What are the symptoms?

Symptoms include loss of speech, difficulty swallowing, rigid limbs, and contraction of the facial muscles, with death often resulting from a complication following these symptoms.

Creutzfeldt-Jakob Disease is found worldwide but is relatively rare, affecting about 1 person per million. The mean age of death is 67 years. Deaths from Creutzfeldt-Jakob Disease are uncommon in people under age 50.

What are the causes?

Creutzfeldt-Jakob Disease is associated with prions: mutated forms of a normal protein produced in nerve cells, white blood cells, muscle cells, and the cells of many other tissues. Just how prions cause the disease remains unclear.

Source: National Institute of Neurological Disorders and Stroke, 2006

Deafness

Policy definition

The total, irreversible and irreparable loss of hearing, both natural and assisted, in both ears as a result of disease, illness or injury.

What is hearing loss?

There are two types of hearing loss. Conductive hearing loss is due to problems affecting sound transmission through the outer or middle ear. It leads to a loss of loudness and can often be corrected. It's like listening to someone speaking very softly or from a distance. Sensorineural hearing loss arises in the inner ear or hearing nerve. It reduces loudness and clarity. As well as the sound not being loud enough, it is distorted so that it can't be understood by the listener - a bit like listening to a language you don't know.

What causes hearing loss?

Some families have a history of Deafness and it is passed from one generation to the next. Often the cause of Deafness is unknown. Many deaf or hearing impaired people were born with good hearing which deteriorated later in life.

Industrial Deafness from prolonged exposure to machinery producing high decibel levels, and infections of the ear are other causes of deafness.

AXA's Trauma Protection is designed to provide financial assistance to those clients whose hearing loss is total and cannot be repaired.

Source: Hearing Association of New Zealand Inc, 2001
Audiology New Zealand, 2001

Encephalitis

Policy definition (Adult Trauma)

Severe inflammation of brain substance which results in significant and permanent neurological sequelae, resulting in either:

- at least 25% permanent impairment of whole person function; or
- the permanent inability to perform independently at least one of the specified Activities of Daily Living.

What is it?

Encephalitis is an inflammation of the brain. There are many types of Encephalitis, most of which are caused by viral infection. Symptoms include sudden fever, headache, vomiting, photophobia (abnormal visual sensitivity to light), stiff neck and back, confusion, drowsiness, clumsiness, unsteady gait and irritability. Symptoms that require emergency treatment include loss of consciousness, poor responsiveness, seizures, muscle weakness, sudden severe dementia, memory loss, withdrawal from social interaction and impaired judgment.

What is the prognosis?

The prognosis for Encephalitis varies. Some cases are mild, short and relatively benign and patients recover fully. Other cases are severe and permanent impairment or death is possible. The acute phase of Encephalitis may last for one to two weeks, with gradual or sudden resolution of fever and neurological symptoms. Neurological symptoms may remain for many months before full recovery.

Source: National Institute of Neurological Disorders and Stroke, 2001

Heart Attack

Policy definition

The death of an area of the heart muscle due to a sudden lack of adequate blood supply to the relevant area where:

- A i there are typical new ischaemic electrocardiographic (ECG) changes at the time of the Heart Attack; and
- ii there are diagnostic changes in relevant cardiac enzymes or markers in the days following the Heart Attack.

If the above criteria are not met, we will consider a claim based on satisfactory evidence that the Life Insured has unequivocally been diagnosed as having suffered a Heart Attack resulting in:

- B i a permanent reduction in the Left Ventricular Ejection Fraction to less than 50% measured in the three months or more after the event; or
- ii new pathological Q waves.

Chest pain that does not meet the above diagnostic requirements is excluded.

What is a Heart Attack?

A Heart Attack refers to damage to the heart caused when the blood supply to part of the heart muscle is blocked. A Heart Attack happens because the blood supply has been cut off following a blockage of one of the coronary arteries (the blood vessels which supply the heart muscle). This is usually the result of two processes:

- the development over many years of fatty plaques in the walls of the arteries,
- the formation of a clot on one of the plaques.

Treatments given early during a Heart Attack can help to dissolve the clot, reducing damage to the heart muscle.

If the blood supply is cut off severely for a long time, muscle cells suffer irreversible injury and die. Disability or death can result depending on how much heart muscle is damaged.

What are the risk factors?

No single cause of coronary artery disease has been identified. The following lifestyle factors are known to increase the risk of a Heart Attack:

- raised blood cholesterol
- cigarette smoking
- raised blood pressure (hypertension)
- lack of physical activity
- obesity
- diabetes
- stress

Risk factors that cannot be changed include age, gender and a family history of heart disease.

The more risk factors a person has, the greater the chances of having a Heart Attack.

Survival

- In 2002/3 11,590 New Zealanders suffered a heart attack. Of those sufferers 27% died while still classified as acute.
- Males accounted for 63% of Heart Attacks in 2002/3.
- One out of five adults aged over 45 years reported they have been diagnosed with heart disease.

Sources: American Heart Association, Fighting Heart Disease and Stroke, 1998
 NZ Health Information Service, Selected Morbidity Data for Publicly Funded Hospitals, 2006
 NZ Ministry of Health, The Health of New Zealand: Total Population, 2004

Heart Valve Surgery

Policy definition

The undergoing of heart surgery to replace or repair a heart valve as a consequence of a heart valve defect. Angioplasty, intra-arterial procedures and other non-surgical techniques are excluded.

How is the heart made up?

The heart has four chambers. Blood is pumped through the chambers aided by four heart valves. The valves open and close to let the blood flow in only one direction. The four heart valves are:

- the tricuspid valve;
- the pulmonary valve;
- the mitral valve; and
- the aortic valve.

continued ... →

How do the valves work?

Each valve has a set of flaps - when working properly, the heart valves open and close fully. But a heart valve can be damaged by such things as:

- infections;
- rheumatic fever; and
- changes in valve structure in the elderly.

A defective heart valve is one that fails to open or close fully. A stenotic heart valve can't open completely (stenosis), so blood is pumped through a smaller than normal opening. A valve may also be unable to close completely, leading to regurgitation of blood back through the valve when it should be closed.

How are heart valve defects treated?

Some valve defects may be repaired or replaced with surgery. The valves are replaced by either manufactured artificial valves or by valves made from pig's heart valves.

Heart Valve Surgery in New Zealand

- In 2000/01, 579 people were treated for diseased or damaged heart valves.
- 62% of these patients were female.
- 57% of female patients were over 55.

Sources: American Heart Association, Fighting Heart Disease and Stroke, 2000
 NZ Health Information Services, Selected Morbidity Data for Publicly Funded Hospitals, 2000/01

Loss of Capacity for Independent Living

Policy definition

The permanent and total inability to perform independently at least two of the specified Activities of Daily Living.

What are the Activities of Daily Living?

The Activities of Daily Living include:

- bathing/showering;
- dressing/undressing;
- eating/drinking;
- using the toilet to maintain personal hygiene; and
- getting in and out of bed, chair or wheelchair; or moving from place to place by walking, or by wheelchair or with a walking aid.

What does Loss of Capacity for Independent Living mean?

The Loss of Capacity for Independent Living definition is designed to provide a Benefit in situations where the Life Insured has suffered a serious Sickness or Injury that restricts them from performing the everyday tasks that we all take for granted.

Loss of Limbs/ Loss of Limbs & Sight

Policy definition - Loss of Limbs (for Adult and Children's Trauma)

The total and permanent loss of the use of:

- both hands, or
- both feet, or
- one hand and one foot.

Partial Payment (for Adult Trauma only)

A one-off Partial Payment of 10% of the Trauma Sum Insured up to a maximum of \$25,000 will be paid upon the total and permanent loss of the use of one limb.

Policy definition - Loss of Limbs and Sight (for Adult and Children's Trauma)

The total and permanent loss of the use of:

- one hand and the sight of one eye, or
- one foot and the sight of one eye.

Partial Payment (for Adult Trauma only)

A one-off Partial Payment of 10% of the Trauma Sum Insured up to a maximum of \$25,000 will be paid upon the total and permanent loss of the use of one limb or the sight of one eye.

How can limbs be damaged and sight lost?

Limbs such as the lower arm and hand or lower leg and foot can be damaged by:

- traumatic amputation;
- crushing; or
- paralysis.

There are many causes of loss of sight with accidents being the most common. Other causes are:

- Cancer;
- diabetes complications;
- Head Injury;
- glaucoma.

New Zealand Statistics

There are approximately 4300 prosthetic limb users in New Zealand, with about 400 new patients each year.

A high percentage of the new patients are older people whose amputations are a result of diabetes or other vascular diseases.

Source: New Zealand Artificial Limb Board, Statement of Intent, 2006

Loss of Speech

Policy definition

Total and permanent loss of the ability to produce intelligible speech as a result of permanent damage to the larynx or its nerve supply from the speech centres of the brain, whether caused by injury, tumour or sickness.

Causes

There are many causes of speech loss with the most common being removal of the voicebox (larynx) as a result of cancer.

Cancer of the larynx is a disease in which Cancer (malignant) cells are found in the tissues of the larynx. The larynx is a short passageway shaped like a triangle that is just below the pharynx in the neck. The pharynx is a hollow tube about 12.5cm long that starts behind the nose and goes down to the neck to become part of the oesophagus, the tube that goes to the stomach. Air passes through the pharynx and then the larynx on the way to the windpipe (trachea) and into the lungs.

Other causes of Loss of Speech include:

- accidents;
- Multiple Sclerosis;
- chest tumours;
- larynx nerve injury;
- lung tumour;
- Head Injury;
- neck injury;
- Stroke.

Source: CancerNet, 2001

Major Head Injury

Policy definition (for Adult and Children's Trauma)

A cerebral injury caused by external trauma which results in permanent neurological deficit and causes either:

- at least 25% permanent impairment of whole person function; or
- the permanent inability to perform independently at least one of the specified Activities of Daily Living.

Head injuries and brain damage

A blow to the head will frequently cause damage to the brain. As a result the brain may be concussed, contused, lacerated, or if there is intracranial haemorrhage, compressed.

Although brain damage can occur without the skull being fractured, closed Head Injuries are usually less serious than those which have resulted in depressed fractures of the skull. A depressed fracture requires an operation to relieve pressure on the brain, and following this a bone graft or metal plate has to be inserted to close any defect in the bone. In some cases the opening may not be closed.

Other complications include Deafness, Blindness, loss of sense of smell, focal paralysis, headaches, dizziness and personality changes.

Head injuries in New Zealand

- Young adults aged 17 - 25, mainly male, make up 50% of known Head Injury victims, usually as a result of car accidents.
- About 170 New Zealanders are hospitalised with Head Injuries every week and many more are concussed or have mild Head Injuries.

continued ... →

Causes

- Traffic accidents
- Industrial accidents
- Sporting injuries
- Falls at home

Source: Head Injury Society of New Zealand, 2006.

Major Organ Transplant

Policy definition (for Adult and Children's Trauma)

The receipt of a transplant of human bone marrow or one of the following whole human organs: heart, lung, liver, kidney, pancreas or small bowel.

Why are transplants done?

Transplants are considered when the organ is failing and does not respond to all other therapies, but health is otherwise good. The organs that are covered may require transplantation as a result of numerous conditions:

Bone marrow

- Leukaemia
- Aplastic Anaemia
- Bone marrow failure

Heart

- Cardiomyopathy
- Coronary Artery Disease
- Congenital heart disease
- Valvular heart disease
- Graft failure

Lung

- Emphysema
- Cystic fibrosis
- Primary Pulmonary Hypertension
- Rheumatoid disease

Liver

- Cirrhosis (where healthy liver cells are killed and replaced with scar tissue)
- Biliary atresia (where the ducts that remove bile from the liver are damaged)

Kidney

- Diabetes
- Polycystic kidneys
- Vascular disease
- Cancer

Pancreas

- Diabetes

Small Bowel

- Chron's disease
- Surgical adhesions
- Thrombotic disorders

What are the risks?

The most common causes of death following a transplant are infection or rejection. The body's immune system protects the body from infection. Cells of the immune system move throughout the body looking for anything that looks foreign or different from the body's own cells. Immune cells recognise the transplanted organ as different to the rest of the body and attempt to destroy it - this is called rejection.

To prevent rejection, patients receive drugs that suppress the immune system so that the new organ is not damaged. Because rejection can occur at any time after the transplant, these drugs are given to patients the day before their transplant and thereafter for the rest of their lives.

Survival after transplantation

A patient's prognosis depends on many factors, including age, general health, and response to the transplant.

Sources: United Network for Organ Sharing, 2000
National Heart Lung and Blood Institute, 1997

Medically Acquired HIV

Policy definition

Medically Acquired HIV is the accidental infection with HIV after the start of this plan, which in our opinion arose from one of the following medically necessary events which must have occurred to you while in New Zealand, by the act of a recognised and registered health professional:

- A blood transfusion;
- Transfusion with blood products;
- Organ transplant to the person insured;
- Assisted reproductive techniques; or
- A medical procedure or operation performed by a doctor.

Notification and proof of the incident will be required via a statement from the appropriate Statutory Health Authority that the infection is medically acquired. HIV infection transmitted by any other means including sexual activity or recreational intravenous drug use is specifically excluded.

This Benefit will not apply and no payment will be made under it where a cure has become available prior to the accident causing the infection. 'Cure' means any New Zealand Government approved treatment which renders the HIV inactive and non-infectious.

What is HIV?

AIDS is caused by an infection with HIV which kills or harms cells of the body's immune system, gradually destroying the body's ability to fight infections and certain cancers.

How is HIV spread?

HIV spreads most often by sexual contact or through contact with infected blood.

At the end of 2000, the adult HIV prevalence rate for the region comprising Australia and New Zealand was 0.13 percent. Currently, 15,000 adults and children are living with HIV/AIDS in the region, of whom 500 were newly infected in 2000. Of HIV-positive adults, 10 percent are women. During 2000, there were less than 500 adult and child deaths due to HIV/AIDS. Cumulatively, the region has had 6600 AIDS deaths, of which 6000 were in Australia.

Why be concerned by Medically Acquired HIV?

People who are in need of blood transfusions on a regular basis, or who may be subjected to large volume blood replacement procedures are exposed to some risk of Medically Acquired HIV. Generally these will be people with blood diseases, or accident victims requiring blood replacement. While screening programs have been effective in reducing incidence rates, it is still accepted that some risk is present.

Source: Medically Acquired HIV Institute, 2001
HIV InSite, 2001

Motor Neurone Disease

Policy definition

The unequivocal diagnosis of Motor Neurone Disease by a consultant neurologist (amyotrophic lateral sclerosis, primary lateral sclerosis, spinal muscular atrophy or progressive bulbar palsy) and confirmed by neurological investigations.

What is Motor Neurone Disease?

Motor Neurone Diseases are amongst the most devastating neurological disorders. These diseases progressively paralyse the body, while leaving the mind intact and aware. Amyotrophic Lateral Sclerosis (ALS) is one of the most common forms of motor neurone disease. There is currently no cure and very little in the way of effective treatment for this disease.

ALS occurs when specific nerve cells in the brain and spinal cord that control voluntary movement gradually degenerate. The loss of these motor neurones causes muscles under their control to weaken and waste away, leading to paralysis.

What are the symptoms?

ALS manifests itself in different ways, depending on which muscles weaken first. Symptoms may include:

- tripping and falling;
- loss of motor control in hands and arms;
- difficulty in speaking, swallowing and/or breathing;
- twitching and cramping.

continued ... 

Is there a treatment?

There is currently very little in the way of effective treatment for this disease. There is no cure for ALS, nor is there a proven therapy that will prevent or reverse the cause of the disorder. One drug, Riluzole, has been shown to prolong the survival of ALS patients.

Incidence and survival

ALS strikes in mid-life and is usually fatal within five years after diagnosis.

- More people die from ALS per year than Huntington's Disease or Multiple Sclerosis.
- A little over 5000 people are diagnosed with ALS in the US each year.
- Half of all people affected with ALS live at least three or more years after diagnosis. 20% live five years or more, and up to 10% will survive more than ten years.

Source: National Institute of Neurological Disorders and Stroke, 1997
ALS Association, 2004

Multiple Sclerosis

Policy definition

The unequivocal diagnosis of Multiple Sclerosis certified by a consultant neurologist and where there is an associated neurological deficit resulting in either:

- at least 25% permanent impairment of whole person function; or
- the permanent inability to perform independently at least one of the specified Activities of Daily Living.

We will make an early one-off Payment of 10% of the Trauma Sum Insured, up to a maximum of \$25,000, on the unequivocal diagnosis of Multiple Sclerosis by a consultant neurologist.

What is Multiple Sclerosis?

Multiple Sclerosis is a disease of the central nervous system (which consists of the brain, optic nerves and spinal cord). In a normal body, nerve fibres found in the central nervous system are insulated by a fatty substance known as myelin. Myelin aids the flow of messages from nerve endings to the brain and vice versa. In Multiple Sclerosis, the myelin breaks down and is replaced with scar tissue which disrupts the transmission of messages from the brain through the spinal cord to various parts of the body. An example being a message from the brain to the legs to walk.

The disease is named "multiple" because many parts of the brain and spinal cord are affected. "Sclerosis" is a Greek word meaning hardened tissue (scar tissue). The cause of Multiple Sclerosis (MS) is unknown and as yet no cure has been discovered.

What are the effects?

The course of this disease varies from person to person. The results of Multiple Sclerosis and their severity are completely unpredictable and differ enormously. They may include:

- loss of balance and co-ordination;
- diminished vision;
- weakness of limbs;
- extreme fatigue;
- impaired speech; or
- loss of bladder control.

The symptoms can be severe or mild, short lived or longer lasting. Multiple Sclerosis is often characterised by intermittent periods of relapse followed by a partial or complete remission. Some people show little or no progression of symptoms after the initial attack while others suffer a rapid progression of the disease which can result in severe disability.

Diagnosing Multiple Sclerosis?

Sometimes diagnosing MS may be difficult and a diagnosis may not be made for some time after the initial symptoms. It is a clinical diagnosis, as there is no single test to make a definitive diagnosis. There are many symptoms of MS that can also be caused by other diseases. The diagnosis is based on the history of episodes of neurological disturbance in different parts of the nervous system over a period of time.

Other diagnoses need to be excluded; some tests may include tests of the eye function (visual evoked response), examination of the cerebro-spinal fluid, magnetic resonance imaging (MRI) of the brain and spinal cord and myelogram (an x-ray examination of the spinal canal and cord).

The established criteria for diagnosing MS are:

1. There must be objective evidence of two attacks (i.e. two episodes of demyelination in the central nervous system). An attack, also known as an exacerbation, flare or relapse, is defined clinically as the sudden appearance or worsening of an MS symptom or symptoms, which lasts at least 24 hours. The objective evidence comes from findings on the neurological exam and additional tests.
2. The two attacks must be separated in time (by at least one month) and space (indicated by evidence of inflammation and/or damage in different areas of the central nervous system).
3. There must be no other explanation for these attacks or the symptoms the person is experiencing.

continued ... 

Survival

- In 2003/4 there were 834 cases of Multiple Sclerosis in New Zealand.
- Over 79% of patients were female.
- 47 days was the average length of stay in hospital for Multiple Sclerosis.

Sources: HealthAtoZ.com, 2000
 NZ Health Information Service, 2003/4 provisional data, 2006.
 NMSS Information Resource Center and Library, 2006.

Muscular Dystrophy

Policy definition

The unequivocal diagnosis of Muscular Dystrophy certified by a consultant neurologist and where there is an associated neurological deficit resulting in either:

- at least 25% permanent impairment to whole person function; or
- the permanent inability to perform independently at least one of the specified Activities of Daily Living.

We will make a one-off Partial Payment of 10% of the Trauma Sum Insured up to a maximum of \$25,000 on the unequivocal diagnosis of Muscular Dystrophy by a consultant neurologist.

What is Muscular Dystrophy?

Muscular Dystrophy is a general term for a group of chronic, hereditary diseases characterised by the progressive degeneration and weakness of voluntary muscles.

At what age do signs of Muscular Dystrophy appear?

Contrary to the wide spread notion that Muscular Dystrophy is exclusively a childhood disorder, clinical onset may occur at any point in the life span. The different types of the disease vary in the age which muscle wasting becomes apparent and in the muscle groups first affected.

Degeneration of muscle in Muscular Dystrophy is a continuing process, with considerable variation in its rate and severity among the different forms of the disease. As a rule, it can be said that the earlier the clinical signs appear, the more rapid the progression and the more widespread and disabling the deterioration.

As muscles deteriorate, patients become weaker. In the severe forms of the disease, patients lose the power of movement and are confined to wheelchairs, and eventually to bed. In such cases, they are finally unable to carry out the simplest activities of everyday life.

How is Muscular Dystrophy diagnosed?

The age of onset, distribution and severity of muscle weakness, and the family history provide essential information in the diagnosis of Muscular Dystrophy. A muscle biopsy can confirm the presence of degeneration.

Is Muscular Dystrophy always inherited?

Muscular Dystrophy is generally inherited but in some cases no family history of the disease may exist. Sometimes mutations in genes occur without any mutation being present in the parents.

Is there any treatment for Muscular Dystrophy?

At this time, there is no known treatment that will arrest or reverse the dystrophic process, but medical management can increase mobility, maximise independence in daily activities, and ease the patient's discomfort. The use of orthopedic devices and physiotherapy, for example, can keep patients moving longer, minimise crippling, and prevent or delay curvature of the spine.

How many people suffer from muscular dystrophies?

- There were 34 hospitalisations in 2002/3 for people with Muscular Dystrophy, with 71% being male.
- 34 days was the average length of stay in hospital for people suffering from Muscular Dystrophy.

Source: Muscular Dystrophy Australia, 2001
 NZ Health Information Service, Selected Morbidity data for Publicly Funded Hospitals, 2006.

Occupationally Acquired HIV

Policy definition

Infection with the Human Immunodeficiency Virus (HIV) which resulted from an accident occurring whilst the Life Insured was carrying out the normal duties of his or her usual occupation. No payment will be made unless all the following are proven to AXA New Zealand's satisfaction:

- Proof of the accident giving rise to the infection;
- Proof that the accident involved a definite source of the HIV infection;
- Proof of sero-conversion from HIV negative to HIV positive occurring during the 180 days after the documented accident. HIV infection resulting from any other means including sexual activity and the use of intravenous drugs is specifically excluded.

This Benefit will not apply and no payment will be made under it where a Cure has become available prior to the accident causing the infection. 'Cure' means any New Zealand Government approved treatment which renders the HIV inactive and non-infectious.

What is HIV?

AIDS is caused by the infection with HIV which kills or harms cells of the body's immune system, gradually destroying the body's ability to fight infections and certain cancers.

How is HIV spread?

HIV spreads most often by sexual contact or through contact with infected blood. In the health care setting, workers can be infected with HIV after being pricked with needles containing HIV-infected blood or, less frequently, after infected blood gets into a worker's open cut or a mucous membrane (for example, the eyes or inside the nose).

It is these health care workers which AXA New Zealand's Trauma Protection is intended to cover.

What are the risks of Occupationally Acquired HIV?

Between 1985 and 1999, there were 55 documented cases of occupational HIV transmission amongst U.S. health care workers. Most involved nurses and laboratory technicians using needles for blood collection or inserting IV catheters.

The worldwide rate of HIV transmission through occupationally acquired needlestick injuries is 21 infections from 6498 exposures or an average transmission rate of 0.3% per injury.

Sources: Sexually Transmitted Diseases, National Institute of Allergy and Infectious Diseases, National Institute of Health, August 1992
Preventing Needlestick Injuries in Health Care Settings, National Institute of Occupational Safety and Health, November 1999

Paralysis – includes Diplegia, Hemiplegia, Paraplegia and Quadriplegia

Policy definitions (for Adult and Children's Trauma)

- Diplegia:** The total and permanent loss of use of both sides of the body due to injury or disease of the spinal cord or brain.
- Hemiplegia:** The total and permanent loss of use of one side of the body due to injury or disease of the spinal cord or brain. If the Hemiplegia occurs as a result of a Stroke payment of the Benefit will be subject to the same Ninety Day Waiting Period as a Stroke.
- Paraplegia:** The total and permanent loss of use of the lower limbs due to injury or disease of the spinal cord or brain.
- Quadriplegia:** The total and permanent loss of use of the upper and lower limbs due to injury or disease to the spinal cord or brain.

What is Paralysis?

Paralysis is essentially a symptom rather than a disease. It indicates a disorder affecting the motor section of the nervous system. The degree and nature of paralysis depend upon the site and the extent of nerve damage. Strokes, Brain Tumours, etc. classically cause extensive loss of function.

continued ... 

What causes Paralysis?

Paralysis can be caused by both disease and accidents causing Spinal Cord Injury (SCI).

In general, diseases that cause paralysis can be divided into two groups:

- those that involve changes in the makeup of nervous or muscular tissue, or
- those that are the result of metabolic disturbances in the function of nerves or muscles.

Frequent causes of SCI are motor vehicle accidents, gunshots and falls. In general, the spinal cord doesn't need to be severed in order for a loss of functioning to occur.

What are the effects of Spinal Cord Injury?

The effects depend on the type of injury and the level of the injury. There are two types of injury:

- Complete injury meaning no function below the level of the injury; including no sensation and no voluntary movement;
- Incomplete injury meaning some functioning below the level of the injury.

Spinal Cord Injuries in New Zealand?

At Burwood Spinal Unit approximately

- 39% of SCI injuries are due to motor vehicle accidents;
- 24% from sport and recreation; and
- 14.5% from accidents in the workplace.

Sources: MedicineNet, 2000
National Spinal Injury Association, 2004
Catwalk.org.nz, 2005

Parkinson's Disease

Policy definition

The unequivocal diagnosis of Parkinson's Disease certified by a consultant neurologist and where there is an associated neurological deficit resulting in either:

- at least 25% permanent impairment of whole person function; or
- the permanent inability to perform independently at least one of the specified Activities of Daily Living.

What is Parkinson's Disease

Parkinson's Disease is a slowly progressing neurological disorder that results from degeneration of nerve cells in a region of the brain that controls voluntary movements. Every movement from swallowing to walking can be involved. Research has shown that Parkinson's is due to reduced production of a chemical called dopamine by parts of the brain, which then impairs the function of other parts of the brain.

Causes of Parkinson's Disease

There has been no definite cause found as yet but there are many theories about the causes. Until recently, the prevailing theory held that one or more environmental factors caused the disease. Some people have an inherited susceptibility to the disease that may also be influenced by environmental factors.

Symptoms of Parkinson's Disease

Parkinson's Disease produces a number of specific characteristics that include:

- a typical hand tremor;
- a stooped posture;
- a short, shuffling gait with no associated arm movements;
- a tendency to fall over;
- difficulty in both starting to walk and in stopping;
- difficulty rolling over in bed and getting in and out of a chair or a car;
- small handwriting;
- soft speech; or
- drooling and difficulty swallowing caused by uncoordinated movements of the throat and mouth.

Eventually it may be necessary for those with Parkinson's Disease to require full time care - it is this advanced stage of the disease that AXA's Trauma Protection covers.

Parkinson's Disease in New Zealand

- In 2002/3, 439 people were treated for Parkinson's Disease, of which 58% were male.
- The youngest sufferers were in their early 40s.
- The average length of hospital stay was 187 days.

Sources: New Zealand Health Information Service,
Selected Morbidity Data for Publicly Funded Hospitals, 2006.
HealthAtoZ.com, 1999

Pneumonectomy

Policy definition

The excision of an entire lung when deemed medically necessary by an appropriate specialist and whose opinion is supported by our medical advisers.

Why would a Pneumonectomy be carried out?

A Pneumonectomy is usually performed on a person with a diseased or damaged lung. Reasons for Pneumonectomy include:

- Cancer of the lung;
- tumours of the lung;
- lung conditions that cause secondary disease, such as dilated bronchi, or tubes leading to the lungs, known as bronchiectasis;
- lung disease;
- lung infection;
- lung abscess, or pus pocket; or
- collapsed lung.

Primary Pulmonary Hypertension

Policy definition

Primary Pulmonary Hypertension with right ventricular enlargement established by investigations including cardiac catheterisation.

What is Primary Pulmonary Hypertension?

Primary Pulmonary Hypertension (PPH) is a rare disease of unknown cause that results in the progressive narrowing of the blood vessels of the lungs, causing high blood pressure in these blood vessels eventually leading to heart failure.

What are the causes?

No one knows what causes PPH, however research suggests a number of factors that may be responsible for the disease.

Possible causes include:

- genetic or familial predisposition;
- immune system diseases; or
- drugs or other chemical exposure (including appetite suppressants).

What are the symptoms?

Initial symptoms may be very minor and diagnosis may be delayed for several years until symptoms worsen. Typical symptoms may include:

- shortness of breath following exertion;
- excessive fatigue;
- dizziness, fainting and weakness;
- ankle swelling;
- bluish lips and skin; or
- chest pain.

It is difficult to detect PPH in a routine medical examination. Even when the disease has progressed, the signs and symptoms may be confused with other conditions that affect the heart and the lungs. PPH is diagnosed only after other possible causes of the hypertension are excluded.

The prognosis for those with PPH can be quite variable. Many patients report that by changing parts of their lifestyles they can go about most of their daily tasks. The average period of survival is three years after diagnosis, although the survival rate is generally longer for those patients without heart failure and for those patients diagnosed after age 40.

Incidence

- In 2000/01 there were 1001 people treated for PPH in New Zealand.
- 579 of these were female and 22% of cases were between the ages of 25 and 45.
- In the US it is estimated that 300 new cases of PPH are diagnosed each year, with the greatest number in women aged between 21 and 40.

Sources: NZ Health Information Service, Selected Morbidity Data for Publicly Funded Hospitals, 2000/01
Primary Pulmonary Hypertension Fact Sheet, American Lung Association, 1999

Severe Burns

Policy definition (for Adult and Children's Trauma)

Third degree burns to 20 percent or more of the body surface or to the whole of the face or the whole of both hands requiring surgical debridement and/or grafting.

Causes of burns

A burn is defined as tissue damage caused by a variety of agents such as:

- heat;
- chemicals;
- electricity;
- sunlight; or
- nuclear radiation.

Most common are burns caused by scalds, building fires and flammable liquids and gases.

How are burns classified?

- First degree burns affect only the outer layer (called the epidermis) of the skin, this is a superficial burn and has similar characteristics to a typical sunburn.
- Second degree burns damage the epidermis and the layer beneath it (called the dermis). These burns can cause blistering of the skin.
- Third degree burns involve damage or complete destruction of the skin to its full depth and damage to underlying tissue. The skin goes white and loses sensation. People who experience such burns often require skin grafting.

What is the significance of body surface area covered?

This is usually measured in terms of the percentage of the total body burnt. The skin acts as a barrier from the environment and without it patients are subject to infection and fluid loss. Burns that cover more than 15% of the total body surface area can lead to shock and require hospitalisation for intravenous fluid resuscitation and skin care.

Burns in New Zealand

- In 2003/4 there were 1274 people hospitalised for burns, of which 68% were male.
- The burn sites included, skin, eyes and internal organs.

Sources: MedicineNet.com, 2000
National Institute of General Medicine Sciences, 1999
NZ Health Information Service, Selected Morbidity Data for Publicly Funded Hospitals, 2006.

Stroke

Policy definition

A cerebrovascular incident that produces a sudden onset of neurological symptoms that persist for more than 24 hours. There must be resulting damage to the brain tissue that is clearly evidenced by:

- MRI or PET; or
- Angiogram; or
- Computerised Tomography (CT Scan); or
- other reliable imaging techniques approved by AXA.

Excluded:

- Transient ischaemic attack;
- Cerebral symptoms associated with reversible neurological deficit;
- Cerebrovascular disorder of the eye or optic nerve;
- Symptoms due to migraine or headache; and
- Brain tissue damage caused by head injury.

What is a Stroke?

A Stroke occurs when one of the arteries of the central nervous system either bursts or becomes clogged by a blood clot. When this happens, part of the brain does not receive the flow of blood it needs. As a result, the affected brain cells die.

What are the symptoms of a Stroke?

Initially people suffering from a Stroke may feel sick and look pale and very unwell. They may complain of a headache or stiff neck. Sometimes a seizure or loss of consciousness occurs.

How do Strokes affect people?

Depending on what function the damaged part of the brain had, a person may lose one or more of the following functions:

- speech;
- part of vision;
- co-ordination;
- balance;
- memory;
- perception; or
- the ability to perform movements - usually affecting one side of the body.

Stroke is a leading cause of serious, long-term disability in New Zealand.

continued ... →

Survival

- Men are more at risk of having a Stroke than women.
- Approximately 10% of people have a second Stroke within 12 months of their first Stroke occurring.
- Strokes are the third biggest killer and greatest cause of disability in New Zealand.
- There is a one in eight chance of suffering a Stroke in your lifetime.
- 25% of Strokes will occur before retirement age.
- Smoking, high blood pressure, lack of exercise, drinking excessive amounts of alcohol, wrong diet, obesity, atrial fibrillation and high cholesterol are the main risk factors for Stroke.

Sources: Stroke Foundation of NZ, 2004

Subacute Sclerosing Panencephalitis – Children’s Trauma

Policy definition

The certain diagnosis of progressive Subacute Sclerosing Panencephalitis.

What is Subacute Sclerosing Panencephalitis?

Subacute Sclerosing Panencephalitis (SSPE) - also known as Dawson’s Encephalitis is a progressive infection of the central nervous system that affects children and young adults (5-20 years old). The disease may develop due to reactivation of the measles virus or an inappropriate immune response to the measles virus. SSPE usually develops two to ten years after the original viral attack.

What are the symptoms?

Initial symptoms of SSPE may include:

- memory loss;
- irritability;
- seizures;
- involuntary muscle movements;
- behavioural changes.

Onset of the disease is subtle and often only recognised after significant neurologic deficits occur. Affected children progress through four loosely defined clinical stages at differing rates.

Diagnosis is based on clinical presentation, an EEG (Electroencephalogram), and abnormal CSF (Cerebral Spinal Fluid) studies.

What is the prognosis?

Although spontaneous improvement or stabilisation can occur, the vast majority of patients die within one to three years after onset. No proven effective treatment is currently available, although research is being undertaken to learn more about the cause, prevention and treatment of SSPE.

How many children suffer from SSPE?

The incidence rate is low. In the US, the reported incidence rate amongst children and young adults aged under 20 is estimated at 1 in 1 million. There is a male to female ratio of 4:1.

Source: National Institute of Neurological Disorders and Stroke, 2006. Healthatoz.com, 2006.

Surgery of the Aorta

Policy definition

Surgery performed to correct any narrowing, dissection, or aneurysm of the thoracic or abdominal aorta but does not include Angioplasty, intra-arterial procedures or other non-surgical techniques.

Narrowing of the aorta

The aorta can become narrowed with the deposit of fatty or calcified material on the inside of the aorta. Once this fatty build up has developed, there may be a further narrowing by the formation of a blood clot. Narrowing can be either congenital or acquired.

Aneurysm

An aneurysm is an area of bulging in a blood vessel such as the aorta due to weakening of the wall by disease, injury or abnormality present at birth. Aneurysms are often caused or aggravated by high blood pressure. They aren’t always life threatening, but there could be serious consequences such as internal bleeding if the aorta bursts.

Dissection

If the inner wall of the aorta is weakened and is then put under strenuous exertion it can split or tear. Blood can leak through these tears into the aortic wall, separating its layers - a process called aortic dissection.

continued ... →

Why is surgery required?

The aorta is the main artery in the body, which carries oxygenated blood from the heart to the rest of the body via its two branches. The aorta can be damaged in three ways. It can:

- be narrowed;
- be torn (a dissection); or
- bulge (an aneurysm).

Treatment for narrowing usually consists of surgery or a procedure called Balloon Angioplasty. Aneurysms and dissections are treated surgically where a patch or artificial piece of blood vessel is sewn where the aneurysm or dissection was located.

Most common procedures used

- A thoracotomy is a surgical incision of the chest wall.
- A laparotomy is a surgical incision of the abdomen.

Source: American Heart Association, 2000

Viral Encephalitis – Children’s Trauma

Policy definition

The certain diagnosis of Viral Encephalitis and where there is an associated neurological deficit resulting in:

- at least 25% permanent impairment of whole person function; or
- the permanent inability to perform independently at least one of the specified Activities of Daily Living.

What is Viral Encephalitis?

Encephalitis is an inflammation of the brain. It is most often caused by a viral infection. Exposure to these viruses can occur through insect bites, food or drink, or skin contact. Once the virus has entered the blood stream, it can localise in the brain causing inflammation of the brain cells and surrounding membranes. White blood cells invade brain tissue as they try to fight off the infection. The brain tissue then swells and can cause the destruction of nerve cells, bleeding within the brain and brain damage.

What are the symptoms?

Possible symptoms are:

- sudden fever;
- headache;
- vomiting;
- photophobia (abnormal visual sensitivity to light);
- confusion;

- memory loss and/or disorientation;
- drowsiness; or
- clumsiness.

Emergency symptoms include:

- loss of consciousness;
- poor responsiveness;
- stupor or coma;
- seizures;
- muscle weakness or paralysis; or
- sudden severe dementia.

How is Encephalitis treated?

Encephalitis can be treated in a number of ways:

- Antiviral medications may be prescribed.
- Anticonvulsants are used to prevent or treat seizures.
- Corticosteroids are used to reduce brain swelling and inflammation.
- Sedatives may be needed for irritability or restlessness.

What is the prognosis?

The prognosis varies - some cases are mild, short and relatively benign and patients have full recovery. Other cases are severe and permanent impairment or death is possible. It is this severity of Viral Encephalitis that AXA covers.

The acute phase may last for one to two weeks, with gradual or sudden resolution of fever and neurological symptoms. However neurological symptoms may remain for many months before full recovery.

Sources: Betterhealth.vic.gov.au, 2006

Activities of Daily Living

The activities of daily living are:

- bathing/showering;
- dressing/undressing;
- eating/drinking;
- using the toilet to maintain personal hygiene;
- getting in and out of bed, chair or wheelchair; or moving from place to place by walking, or by wheelchair or with a walking aid.

25% impairment of whole person function

Where Trauma event definition refers to a 25% impairment of whole person function, we will place a reliance on the latest published edition of American Medical Association (AMA) guidelines to evaluate the permanent impairment at the time of claim. Assessment must be carried out by a Medical Practitioner accredited in the evaluation of permanent impairment.

www.axa.co.nz

For more information about this and other AXA New Zealand products & services, contact your financial adviser or contact us on **0800 106 652** fax **0800 161 699**



**INVESTMENTS INSURANCE
SUPERANNUATION**

The National Mutual Life Association of Australasia Limited (Incorporated in Victoria, Australia PO Box 1692, Wellington. Member of the Global AXA Group.

Be Life Confident