

# Abwehran

A native species to the heavy gravity world of [abwehr](#), which orbits the gas giant of Jaspis IV in the [Jaspis](#) system.



## General Information

<b>Home World:</b>	<a href="#">abwehr</a> , <a href="#">Jaspis</a>
<b>Major Factions:</b>	<a href="#">Abwehran Star Empire</a>

The Abwehran people are a young, space-faring race with little experience dealing with other species. Because of this, they are naturally either curious about everything or paranoid. Some take kindly to the 'aliens' more than others and those others are usually of the elder generations. The younger generations, usually those in the military, are actually quite curious, as well as cautious, of those from outside the

Jaspis System. They are willing to befriend as long as the 'aliens' don't try to force their views upon them.

Abwehrans are actually two sub-species: the Surfacers and the Night-walkers (Nightdwellers). Some of each sub-species have even interbred to create a third, hybrid, sub-species.

## Abwehran Physiology

### Appearance

A race of humanoids with an appearance based on gender, the Abwehrans are typically seen as stockier and taller than average humanoids. Male Abwehrans are truly the most different from average humanoids with a total of six limbs in all: four arms and two legs. Female Abwehrans lack the extra two arms and look more [Human](#) in appearance compared to their male counterparts.

For a more detailed look at the Abwehran appearance, see: [Oberflächenbewohner](#), [Nacht Bewohner](#), and [Surfacer/Nightwalker Hybrid](#) pages.

### Nervous System

The Abwehran nervous system itself is fairly similar to an average humanoid nervous system in that it contains one brain and a vast network of nerve clusters all across the body that send signals from stimuli to brain. The main difference is the structure of the brain itself. Instead of two completely separate lobes, the Abwehran brain has two lobes fused together in the middle, decreasing transmission time between them. This allows the Abwehran brain to process information at a faster rate, though still doesn't compare to a computer system. The Abwehran brain is also twice as dense as the human brain, containing more neurons and nerve cells over all.

Because of this, pheromones, about 10 extra hormones in the Abwehran body, Abwehrans have a slight empathic ability. This enables them to sense the surface emotions of people within a 10 meter diameter of them, but it can never go beyond that. The ten extra hormones in the system enable the Abwehran to *translate* Abwehran pheromones<sup>1)</sup> into emotions that could be understood by the individual Abwehran.

The Abwehran brain also has additional nerve tissue used to control the extra limbs they have compared to other humanoids. Located close to the motor system of the brain, this nerve tissue may still be found in female Abwehrans (who have lost their additional limbs in the species evolutionary past). This is often beneficial for those that are affected by a type of mutation in which a female might be born with the amount of arms of a male.

### Skeletal System

Most of the Abwehran's weight comes from their durable skeletal structure that is comprised of both iron and calcium. Male Abwehrans also have more bones in their torso than females, due to the need for two

pairs of shoulder joints and extra ribs as well as more vertebrae. This gives the male Abwehran a longer torso than its female counterpart.

Overall, the Abwehran skeletal structure has been designed to take more wear and tear than the human skeleton. This is due to the amount of stress high-gravity environments create on living creatures, even those that evolve in those environments. Because of their durability, an Abwehran can handle a maximum of 25 gravities before their skeleton starts fracturing. A gravitational force of 27 gravities will crush the Abwehrans skeleton. Unfortunately, this makes floating in water with low saline content very difficult. Most Abwehrans cannot swim without the assistance of a flotation device. This has led to a species wide fear of submersing themselves in water up to their neck without necessary survival gear.

Other than that, the skeletal structure is still able to fulfill the original functions of providing shape/support, attachment, movement, protection, blood cell production, and mineral storage

## **Muscular System**

The Abwehran Muscular structure is significantly more dense than humanoids born from 'normal' gravity environments. These dense muscles give the Abwehran people a more muscular look than most humanoids, even when their strength on there home world is comparable to the strength of unaugmented Nepleslian weight-lifter on their home world. Along with increased density, Abwehran Muscles have also evolved increase durability to the wear and tear of high gravity environments.

## **Cardiovascular System**

Though similar to humans in most respects, in design the Abwehran's cardiovascular system, like much of their physiology, is much more durable due to the high gravity environment of their home world. The major difference is the fact Abwehrans have two hearts instead of one. One heart is located in the left breast of an Abwehran, underneath the rib cage, the second one is actually located closer to the stomach on the right side (still under the rib cage. These muscular pumps ensure blood is pumped everywhere it needs to be in the heavy gravity conditions. It also has the added benefit of allowing Abwehrans to survive longer.

If one heart should fail, the second heart takes up the slack for the failed one, but only for a hour before the strain causes it to fail as well. This means an Abwehran has a greater chance of surviving until medical assistance can arrive. Other than that, Abwehrans have more flexible and durable blood vessels to compensate for the increase in pressure (pressure that would kill most humans) caused by the two hearts pumping.

Abwehran blood is a bright orange when oxygenated and a dull orange in the veins.

## **Endocrine System**

Though similar to humans, the Abwehran Endocrine system is quite different due to containing nearly 70 different hormones instead of the humans maximum of 50. The extra 20 hormones dealing with empathy

and limb regeneration.

Creating these hormones are two extra glands in the body. The Heilende Quelle is a gland located on the medulla oblongata and produces twenty peptide type hormones that promote the regeneration of missing limbs when the brain loses the signals from nerves of the missing limb. Regeneration is only possible if there is some of the limb left over (a stump) and can take from either a full Abwehran day (48 hours) to a month for the limb to full regenerate.

The second gland is located pretty much in the same area of the brain and is called the Gef  leser, creating both steroid hormones to manage the section of the Abwehran's brain responsible for the slight empathic sense.

## Immune System

Along with the typical T-cells, B-cells, antibodies, and platelets most humanoids carry within their immune system, Abwehrans have a very special cell that they have dubbed, K-cell. The K-cell is a powerful form of what may have been T-cells a few millennium ago. The K-cells main design is to kill and dissolve any foreign particles within the body. This includes both organic viri/bacteria/parasites and artificial nano-scale robotics.

The way the K-cell works is very much like the T-cell in that it attacks disease and parasites directly at the source. But what makes it different is the strength and ferocity of the attack. If you had to describe it, the T-cell would be like a foot soldier while the K-cell would be a Berserker in terms of raw strength. The K-cell will even attack the body's own cells if any were to be infected, this includes infected immune system cells as well.

## Reproductive System

Similar to that of the [Nepleslian](#) reproductive system, the Abwehran reproductive system revolves around gamete-producing organs. The male uses a system involving a phallus, testes, prostate, and lubrication gland that is all designed to impregnate a female internally. Structurally, a male Abwehran has two sets of testes: an internal set located within the region of the pelvis and an external set located under the phallus. The internal set of testes are used to produce sperm during the coldest times of the Abwehr year, while the external set are used during the warmest times of the year. Male Abwehrans switch from one pair to the other during extreme climate changes. While this usually occurs at least once a Quarter, it may also occur when going to other worlds or even when moving to other latitudes on Abwehr.

This change, called Climate-based Testes Syndrome (or CTS), often produces mood swings in a male Abwehran where aggressiveness and libido increase. CTS normally takes a week to go through and males are often temporarily sterile during such times. Due to the Abwehran's empathic abilities, many females tend to shy away from an Abwehran male in this state due to their temporary sterility<sup>2)</sup>. CTS begins to occur when a male Abwehran reaches puberty<sup>3)</sup> and continues until the male reaches a venerable age<sup>4)</sup> when a male becomes permanently sterile.

On the female side of the equation, the system revolves around two sensation organs, a lubrication organ, and the gamete-producing ovary. Fertilization occurs inside the female as well as gestation. All

female reproductive organs are internal except for one sensation organ near the entrance to the reproductive system. The female Abwehran has a 1095-day menstrual cycle<sup>5)</sup> consisting of five phases: a menstrual phase, a proliferation phase, an ovulatory phase, a luteal phase, and an Ischemic phase. A female Abwehrans menstrual phase normally begins on the first day of the cycle and lasts an average of 4 days, which involves the female expelling the old uterine lining and about 400 milliliters of blood. During this phase, Abwehran females tend to have severe mood swings as well as abdominal cramping and other physical side effects. Due to the length of the normal Abwehran menstrual cycle, the menstrual phase tends to be much more intense than with other Humanoid females. Like with the male CTS, Abwehran females tends towards increased aggression and libido during this periods of time. Much like females during CTS, Abwehran males tend to shy away from females during the menstrual phase.

The first Proliferative phase involves the uterine lining thickening once more in preparation to received the unfertilized gamete. In a phase that lasts approximately 158 days, the first proliferative phase categorized by a surge of estrogen in the female Abwehran.

The period of an Abwehran's menstrual cycle when the unfertilized gamete is released from the Ovary to travel to the Uterus, Ovulation begins on the 159th day of the cycle and continues for an average of 25 days. During this time, either one or all of the female's ovaries can release gametes. The release of multiple gametes is often the direct factor in Abwehran females having multiple offspring at once.

A period that causes the formation of a corpus luteum<sup>6)</sup> and lasts on average 723 days. During this time, if fertilization does not occur, the menstrual cycle moves onto the Ischemic Phase. If fertilization does occur, the corpus luteum continues to maintain the uterine lining until the placenta forms.

The Ischemic phase occurs if no fertilization happens to the gamete. During this time, secretions of estrogen and progesterone decrease in order to thin the uterine lining and prepare it for menstruation. This phase normally starts on the 724th day and lasts until the final day of the cycle, normally an average of 185 days. After that, the cycle begins with the menstrual phase. An Abwehran female is most fertile between the 198th and 622nd day, which is between the proliferation and luteal phases. During this period of time, the percentage of fertilization varies between individuals, but fertilization is most likely to occur during this.

Gestation of Abwehran offspring is one of the major differences between Abwehrans and [Nepleslian](#) reproduction with a gestation period of twenty months separated into quarters. The first quarter of gestation is between the first month and the fifth month of pregnancy. During the first month, there is literally no outward displays of whether an Abwehran female is pregnant or not. During this month ovulation occurs, but pregnancy cannot be detected until the second month. During the first month, embryogenesis is the primary function as the zygote attaches itself to the uterine lining. By the fifteenth Abwehran day, the zygote itself has formed into an amniotic sac. From the second month to the end of the third month<sup>7)</sup>, the zygote enters the embryonic stage and continues cell differentiation. At the end of this phase, the embryo enters the final stage and is designated a fetus.

During this time, the female starts showing signs of pregnancy in several side effects. Increased hormone production leads to mild mood swings at first that increase in severity over the course of the pregnancy while the second month of gestation is plagued with nausea and sometimes vomiting. The areola of a females mammarys start to enlarge and darken in color, though they remain close to their original color throughout the first and second quarters. The initial stages of fetal development, which are the remaining two months of the first quarter, involve the development of the brain and vital organs.

The second quarter of gestation runs between the sixth and tenth months. The fetus has taken the form that is similar to an Abwehran, but still seems completely alien in appearance. It is during the sixth and seventh months that many treatments against genetic deformities and defects may be done. However, treatments of this level may still fail due to the level of changes still left to go. Vital organs in the fetus are still forming with many of them not even functioning at this point of time. It isn't until the ninth month that the vital organs are fully formed and the supporting organs begin to take shape. The mother starts to gain weight during the last two months of this quarter until her stomach begins to show signs of the pregnancy.

From the eleventh month to the fifteenth month, or the third gestation quarter, the fetus' supporting organs and growth take precedence. Organ formation takes place during the eleventh, twelfth, and thirteenth months with the fetus stabilizing in sex and appearance. During the fourteenth and fifteenth months, the fetus grows slowly. It is during this time that the mother's breasts have swell in size dramatically with the coloration of her areolas darkening quite a bit. The slight bulge from the second quarter is now fifty percent larger than before.

During the final months leading up to birth, the fetus will grow to its final birth size, which is an average of 62 centimeters (24.41 inches) and a weight of 4.2 kilograms (9.26 lbs). This growth normally takes the entire quarter with the fetus flipping upside-down on the twentieth month in preparation for birth. Labor is divided into three phases: early, active, and post-labor. Early labor is when the female's body is preparing for active labor. Early labor can last the longest and may often take as much as 8 The cervix at this point is starting to dilate in preparation for the offspring to exit. Active labor is when the cervix dilates fully and the act of pushing the young out can occur, which is often done in a medical facility to properly care for both mother and offspring. For first time mothers, this can last an average of an hour for the first offspring without epidural<sup>8)</sup> with each subsequent child taking at least 30 minutes. For previous mothers, active labor may take as long as 20 minutes without epidural. If the mother has had an epidural, active labor may take longer. Post-labor is the process of removing the placenta from the body, which is the shortest phase of labor.

Abwehran females are also much more likely to have multiple births than [Nepleslian](#) females. The average Abwehran female is 50% more likely to have dizygotic gestation<sup>9)</sup> and a 25% increased likelihood of polyzygotic gestation<sup>10)</sup> than their [Nepleslian](#) counterparts. This makes it rather common to have twins, triplets, or more offspring.

## Other Biological Facts

### Biological Age

The Abwehran people age at a different rate from most humanoids during their first five Abwehran years (approx. seventeen Standard years). The aging process is actually faster during this time than humans, making them have the appearance and mental state of approximately sixteen years old by human standards by the time they are five Abwehran years old. This means Abwehrans reach adulthood by the age of five Abwehran years old. After reaching that milestone, their aging reduces drastically.

Overall Abwehrans live for slightly longer than humans. Due to their current medical technology, the longest living Abwehran has reached 56 Abwehran years old (approx. 198 Standard years). On average,

however, most Abwehrans do not last beyond 50 Abwehran years in age (approx. 177 Standard years). To calculate an Abwehrans age in Standard years, you would have to take the age in Abwehran years and multiply it by the difference between the length of an Standard year and the length of an Abwehran year ( $AY * 3.551 = SY$ ). To calculate how old an Abwehran appears to be beyond twelve Abwehran years, you would have to take the age in Abwehran years and multiply it by 1.6 ( $AY * 1.6 = \text{appearance in SY}$ ). **For Abwehrans in between five and twelve Abwehran years, they will always appear to be seventeen to nineteen years of age.** Appearance for Abwehrans younger than that varies greatly due to their hyper-metabolism.

## Evolutionary Background

The Modern Abwehran is descended from two precursor species that evolved upon [abwehr](#): Proto-Abwehrans and Ancient Abwehrans.

The Proto-Abwehran was an aboreal primate species from the equatorial region of *Heim der Karminrotten*. This thick-skinned species was a hex-limbed species with a set of motive limbs (feet), a set of tool-using limbs (hands), and a set of intermediate limbs that could be used for motive purposes or to hold objects. Proto-Abwehrans also had a prehensile tail that aided them in tree climbing and keeping stationary on branches. Primarily an omnivorous species, it was the development of stone based tools that enabled them to gather the food necessary to propel their evolution.

Ancient Abwehrans are the closest relatives to the Modern Abwehran. Male Ancient Abwehrans are almost identical to Modern Abwehrans in structure. The main differences between a Male Ancient Abwehran and a Modern one are the prehensile tail<sup>[11]</sup> and an abnormally thick skull that enabled the brain to withstand tremendous amounts of trauma. In Ancient Abwehran males, the intermediate limbs evolved a more tool-using aspect and less of a motive aspect as the skin of the palms thinned and became more tactile.

Ancient Abwehran females suffered a tremendous change in evolution compared to the males. While they were similar to their male counterparts when it came to the prehensile tail and the thick skull, the intermediate limbs of the female became short and stunted compared to Proto-Abwehrans. In fact, these limbs in structure looked barely usable and have baffled Abwehran Scientists for centuries. Many theories have been developed on why Modern Abwehrans females lost their third pair of limbs: from the use it or lose it theory to even traumatic events in the genetic structure. It's obvious that the Modern Abwehran female still has the genetic code for their third pair of limbs since genetic defects and mutations may sometimes bring it out in some females. This is one of the great evolutionary mysteries of the Abwehran people.

## Hand Dominance

In the Abwehran species, nearly 70 percent of the population is right hand dominant. In Abwehran females, this is easy considering they only have a single pair of arms. However, this percentage is complicated when it comes to the male Abwehran. With the addition of another pair of arms, the percentage is split between a single hand or both hands on the right side. Out of the right-handed, Abwehran male population, 80 percent are right-side dominant. Of the single-right hand dominant



Abwehrans, nearly 94 percent are upper-right hand dominant. For the left-handed male population, 60 percent are left-side dominant. Eighty percent of single-left hand dominant Abwehrans are upper-left hand dominant.

How Abwehran Empathy Works

Abwehran empathy is based more on pheromones and the individual's ability to detect and recognize those pheromones than some pseudo-psychic ability. When an Abwehran feels an emotion, a certain pheromone or combination of pheromones are released by the body. These pheromones are taken in via olfactory and respiratory organs, which transmit signals to specific sections of the Gef  llseser gland to release the necessary hormones into the brain. Depending upon pheromone saturation of an area and the volume of an area, this empathic ability has a range of approximately ten meters in diameter<sup>12)</sup>.

However, this ability has mixed affects when considering pheromones produced by other species. With some species (such as naturally-born humanoids), the empathic ability works only partially. Some emotions like fear or anger are easier to perceive than emotions closer to love or longing. In non-humanoid or more alien-like species, every pheromone gives out a strange sensation to an Abwehran. To an Abwehran, pheromones from a non-humanoid species tend to translate in a predatory hunger, into nothing at all, or even into sensations that may confuse the Abwehran in question. This makes interactions with such species relatively awkward and even down right disturbing for an Abwehran.

Abwehran Sub-species

<b>Oberfl��chenbewohner</b>	The hedonistic majority of the Abwehran population that lives upon its surface.
<b>Nacht Bewohner</b>	The pragmatic minority that lives in subterranean cities.
<b>Surfacer/Nightwalker Hybrid</b>	A hybrid of <b>Oberfl��chenbewohner</b> and <b>Nacht Bewohner</b> that makes up less than a percent of the population.

Miscellaneous Links

- [Unified Abwehran Culture](#)
- [Abwehran Mutations And Defects](#)
- [Abwehran CCG Start](#)

OOC Notes

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<b>species</b>	
<b>Species Category</b>	human
<b>Nanomachines</b>	Low
<b>Symbiotics</b>	Average



species	
Pharmaceuticals	High

1)

and the pheromones of some species

2)

though there are some females who are able to overcome this biological condition and take advantage of this state

3)

approximately 3-4 Abwehran Years or 11 to 14 Standard Years

4)

approximately 48 Abwehran Years

5)

almost three times longer than a human's

6)

a cell responsible for maintaining the uterine lining

7)

30 Abwehran Days / 60 Standard Days

8)

<http://en.wikipedia.org/wiki/Epidural>

9)

multiple (typically two) fetuses produced by two zygotes

10)

multiple fetuses produced by two or more zygotes

11)

which may still breed true in Modern Abwehrans due to mutation and genetics

12)

in an enclosed room

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