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# PLACENTA POWER

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The manuscript of this book was written by Sophia Johnson. Jana Pastuschek was involved in the lecturing- and review process and contributed following sub-chapters: The toxic Placenta, The phylogenetic origin of the placenta and parts of The placenta as a research object, Hotly debated: Placenta and microbiome and Introduction to our placenta universe.

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# PREFACE TO THE ENGLISH TRANSLATION

We wrote this book a year ago in our mother tongue, German. In order to make our research and findings accessible to a wider audience, we have decided to translate “Plazenta Power” into English. However, this is purely a translation. It is not an adaptation for English-speaking or other countries, which means that we refer to German laws and regulations. Please note that the statements in this book may not be applicable, valid or legal in another country or state. We therefore ask you to undertake your own research on those topics independently.

Furthermore, the ideas and thoughts shared in this book might be influenced by our German culture. We ask for your understanding if we do not adequately reflect your customs, rules or culture. It is not our intention to judge or offend anyone in any way.

We are fascinated by all different kinds of placentas, no matter who gave birth to them!

Enjoy entering the placenta universe!

*Sophia Johnson and Jana Pastuschek,  
Weimar and Jena, June 2024*



## FOREWORD

An entire book just about the placenta? When the placenta simply “appears” after the birth? No, it is not simply that and the afterbirth is not just the “birth after birth”. After the dramatic stretching of the vagina by the child, it allows the woman a further, much gentler stretching and soft birth – as a kind of reconciliation after the birth of the child; a soft, warm conclusion to this so formative birthday of her child.

The modern technical term “placenta” (Latin: cake) has replaced the long-used term “afterbirth”. And that’s a good thing. In common parlance, the placenta has long been called a mother’s cake and sometimes also a child’s cake. These terms do far more justice to the organ. After all, it has nourished the child since its conception, allowing it to grow and thrive. No placenta, no child! Because without all these vital substances that the placenta produces and transports to the child via the umbilical cord, the growth of a child in the womb would not be possible. The placenta is also responsible for removing the baby’s metabolic products – an all-round talent that offers a 24-hour service to the unborn child. The Mexican term “companion” or the term “other half”, which is commonly used in Latvia, is therefore far more appropriate.

The placenta provides reliable care for the child, parents can trust it to a great extent and so they should also look at it after the birth and thank it for its perfect care. This was the baby’s cradle during pregnancy: soft, red-blue-purple in color and covered with a delicate silk canopy (the egg membranes). I always said: Look, your child was wrapped in velvet and silk, soft and warm, take this as a model. Covered that way your child can continue to grow well “outside”.

As you can read in this book, the placenta not only nourished the child in the womb, it is also a powerful healing agent for mother and child after birth. It is reassuring that there have always been parents who – presumably through conversations with midwives or like-minded people – give a lot of thought to what should happen to the organ after birth. Some bury it more or less secretly very deep in their own garden – others invite people to a ritual at the christening and

plant a tree together with family and friends to match the shape of the placenta or the child's name, such as an apple tree of the same name for the boy Jonathan. Others prepare a homeopathic medicine themselves, some have it professionally made, others eat a piece raw - read about the healing power of the placenta in this book and then understand that there really is power in it!

So, this piece of "human flesh" is actually more important after the birth of the child than you might think. The two experts Sophia Johnson and Jana Pastushek have succeeded in writing a book with a refreshing yet factual vocabulary that opens up scientifically confirmed new horizons for the placenta - the gory chunk of power after the birth of a child.

I hope that the book will become specialist literature for midwives and obstetrics, and that it will be an exciting read for parents-to-be, enabling them to make well-informed decisions about what they consider to be right for them with regard to the placenta after birth.

*Ingeborg Stadelmann, June 2023*

# INTRODUCTION TO OUR PLACENTA UNIVERSE

“Hello Sophia, who’s looking after your children tonight? I’ve just had a call from the delivery room: The midwives are currently looking after a woman giving birth to her second child, the cervix is fully dilated. It may well be that the placenta will be born in an hour or two. Could you come to the lab?”

This is roughly what a typical call from my colleague and now friend Jana Pastuschek sounds like. Together we have spent the odd night or two at the Placenta Laboratory at Jena University Hospital taking samples from newborn placentas. While the mother’s attention is naturally focused on the newborn after birth, Jana and I find it incredibly exciting to devote ourselves to the “miracle organ of pregnancy”, the placenta.

But that wasn’t always the case ...

During my medical studies, the placenta was only mentioned as a side issue in the lectures on gynecology. It was only after the birth of my daughter that my husband surprised me by asking me whether he should make my placenta into capsules, as this would supposedly support healing in the postpartum period. He is half American and had already heard about the trend in the USA. However, I didn’t know anything about it until then and rejected his suggestion. But my interest was piqued, so a few months later I knocked on the door of the placenta laboratory in Jena: “Have you ever heard of placenta as a remedy?” And so, my scientific work on this topic began.

All beginnings are dusty, because it is well known that exciting experiments are preceded by literature research. I spent a lot of time in libraries and sometimes had more than seventy-year-old, porous, typewritten pages of doctoral theses on placenta as a remedy in my hands. The further my research took me, the clearer it became to me: placenta is known to be an effective remedy in the various integrative medical systems such as homeopathy, anthroposophical medicine and traditional Chinese medicine.



## HISTORY AND CURIOSITIES

Today, the placenta is often viewed solely as a pregnancy organ that must function properly to ensure the healthy development of the unborn child. Apart from this, there is another way of looking at the role of the placenta: the placenta as a healing agent after birth. However, this knowledge is nowadays not very popular and cannot be found in the relevant textbooks on obstetrics, but only - if at all - in references from traditional midwifery. This is demonstrated by midwife Cornelia Enning in her book *Heilmittel aus Plazenta*.

There are many different reports, anecdotes and traditions about the use of human placenta as a remedy around the world. In Argentina, for example, native ethnic groups use the powder from the dried umbilical cord to treat sick children. The Kol ethnic group in central India administer placenta as a remedy to improve fertility. The benefits are also known in other parts of Asia: A Chinese scientist who visited our placenta lab in Jena for a research exchange told us that, as a child, he was given a soup cooked with a small piece of his dried placenta and umbilical cord because he was so small and weak ... The list could go on and on.

### From the Pharmacopoeia by Landamman

The use of placenta as a remedy - at least in German-speaking countries - can be traced back not only to traditional midwifery knowledge, but also to traditions from medical literature. In the pharmacies of the 18<sup>th</sup> century, dried placenta was available as a remedy alongside many other medicines of the time. There are various historical sources that document this. In the *Württembergischer Pharmakopöe*, a pharmacopoeia from 1741, it is described that dried human placenta was administered as a powder for "difficult births". According to this source, the placenta was first washed in wine and then dried. This was a simple method of disinfection at the time, as wine was more sterile than water, which was often contaminated with germs.

# PLACENTOPHAGY

## A clarification of terms

The vernacular has coined an exciting term for the placenta: “the mother’s cake”. Our own children, who had never seen a placenta at that time, imagined it to be something very tasty. Probably a mixture of tart and chocolate cake. The reality of seeing a placenta for the first time was disappointing for them.

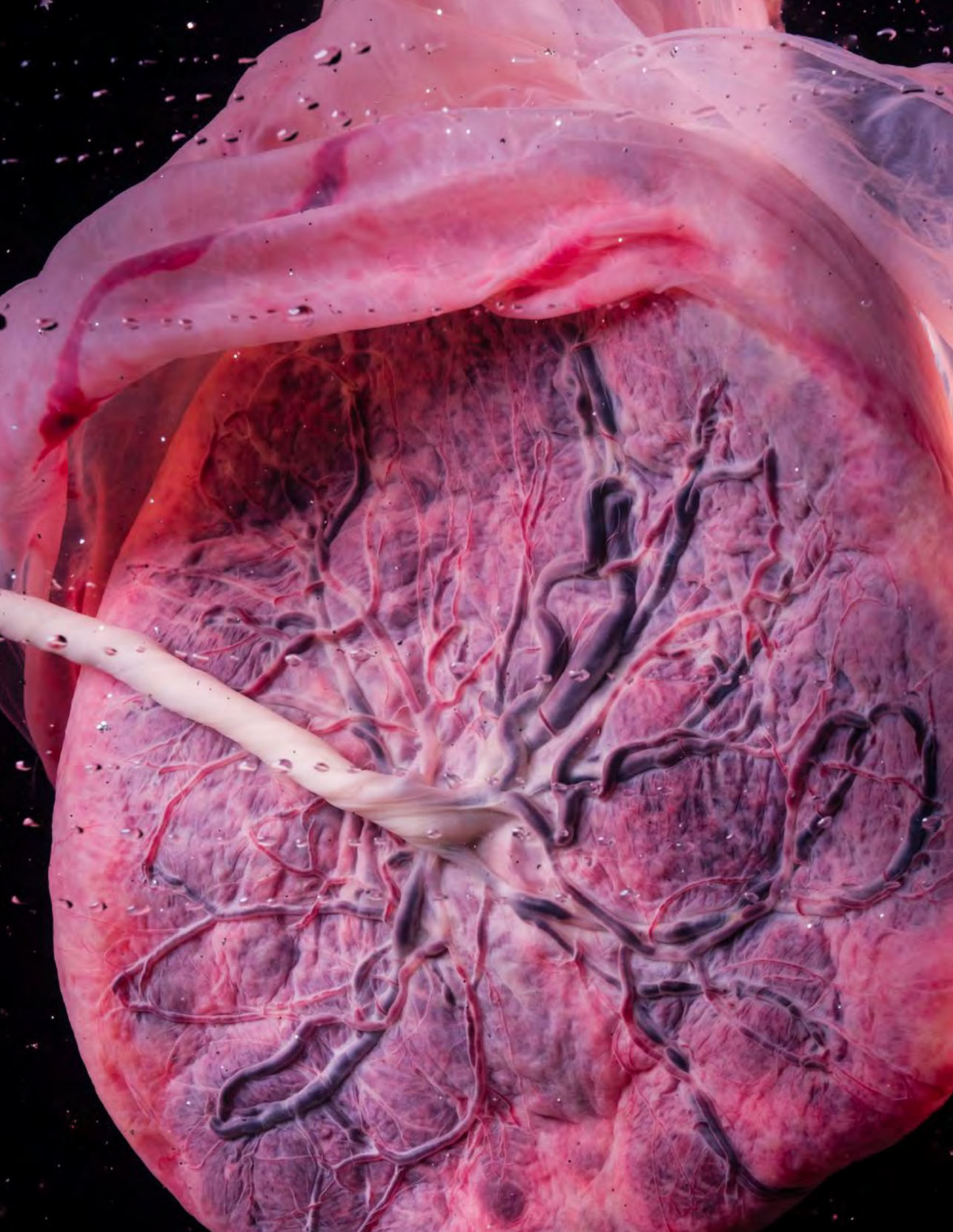
Placenta comes from the Latin “placenta” and means flat cake. Perhaps it is also related to the Latin verb “placere”, which means to please or to satisfy? If so, the idea of tasting is not particularly far-fetched. However, if you search for a word that describes placenta tasting, you will come across the term “placentophagy”.

Placentophagy is a scientific term that is used worldwide. The derivation of the word is relatively simple: we already know placenta. “Phag” is a suffix that comes from Greek and is derived from the word “phagein” – “to devour, to eat”. Placentophagy could therefore be translated as placenta consumption.

Sometimes remedies are made from a placenta that are not only taken by the mother. In some cultures, the newborn’s family, for example a sick sibling, also receives some of the “placenta”. This is known as human placentophagy. However, if the mother ingests her own, very individual placenta, this is described scientifically as “human maternal placentophagy”, i.e. the consumption of the placenta by the mother.

So, having sorted out the terms, now we can go into detail.







# THE PLACENTA AS A RESEARCH OBJECT

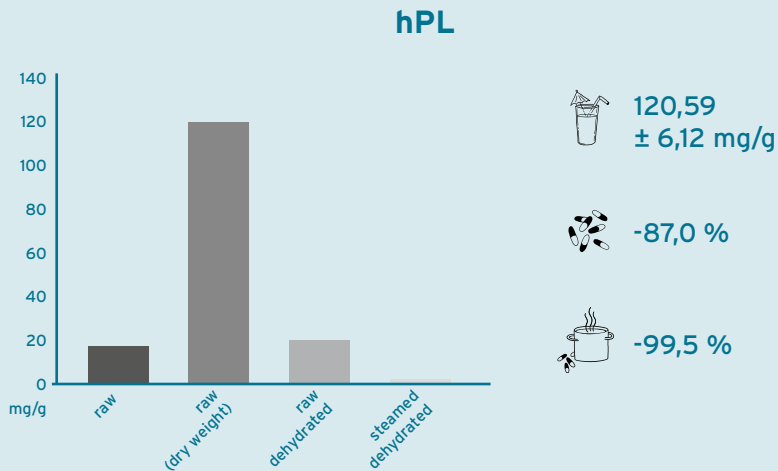
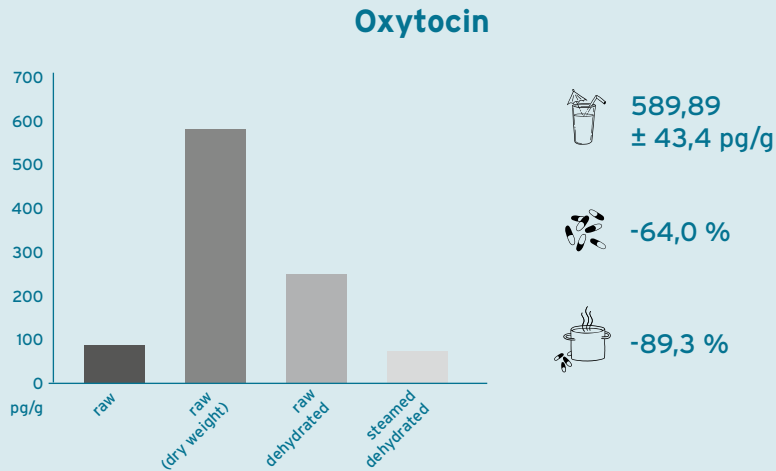
The special thing about our research in the placenta lab is that we have the opportunity to experiment with a healthy, complete and fresh organ. For example, a few minutes after the placenta is born, we can create simulated maternal and fetal circulations in the laboratory and keep the placenta alive for a few more hours. This model of human placenta perfusion is only established in a few research groups in Europe and worldwide. This method is also known as ex-vivo perfusion (translated: taken from life and artificially supplied with fluid). The placenta perfusion research model is used to investigate whether a drug reaches the child via the placenta. We can use this model to test whether certain substances are transferred from the mother's side to the child's side. Indirectly, a transfer to the child's side also describes a contact on the part of the unborn child with the investigated substance. For many medicines or particles, it is not desirable for them to reach the unborn child. However, it has been shown in recent years that, for example, nanoparticles, microplastics and small carbon black particles can cross the placental barrier.

However, with other substances, such as antibiotics, it is sometimes necessary to be able to specifically treat the unborn child as well (as in the case of an ascending infection via the maternal vagina). This requires information about the concentration in which the antibiotics are transported across the placental barrier.

Most information on medication during pregnancy is based on observation and experience. Drugs are not tested on pregnant women. Fortunately! Because there are, of course, very clear ethical boundaries. Before an active substance can be administered, sufficient long-term studies must prove that it is safe to do so. Various research models such as animal experiments or studies on cell cultures are used for this purpose.

The tragic case of thalidomide illustrates what happens when drugs are not sufficiently tested before clinical use. This drug was brought onto the market without prior clinical investigation of the long-term consequences for mother

Significance for breastfeeding: The placental lactogen is contained in the milligram range in one gram of placenta tissue. Oxytocin is not quite as sensitive to dehydration.



## We love questioning science!

There are women who want a self-determined birth – if possible, without external interventions. There are also women who would like to give birth out of hospital, i.e. at home or in a birthing center. We know from American data that women who do not give birth in a clinical setting often use their placenta as a remedy in the postpartum period.

The German Society for Quality in Out-of-Hospital Birth (QUAG) exists to assess the safety of these births in Germany. The aim of QUAG is to make the quality of obstetric care provided by midwives in birth centers or at home births visible. Data surrounding the birth is collected and is then available for analyses, scientific evaluations and publications.

In the US, the benefits and risks of out-of-hospital birth are examined in scientific discussions, too; always with a view to the safety of mother and child. However, we sometimes observe a tendency to confirm prejudices in these publications.

For example, in the publication *Alternative Birth Plans and Unintended Maternal and Neonatal Consequences: A Review of the Literature*, the authors claimed that heavy metals such as cadmium, lead and mercury accumulated in the placenta and concentrations of heavy metals in placenta capsules reached or exceeded the limits for foodstuffs. The authors concluded that placentophagy should be avoided due to risks and lack of benefits, and that women who wish to ingest their placenta should be advised not to do so. Unfortunately, in this section of the publication, the data was skewed. Our study (and other scientific publications) showed exactly the opposite: potentially toxic trace elements are only marginally present in placental tissue and are well below the permitted level for food (see chapter **Trace elements in placental tissue**).