MATHYS
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a new way of thinking about everyday life in medicine and in the clinic

STIMULI FROM ORTHOPAEDICS AND THE PROFESSIONAL FIELD – FOR PHYSICIANS, SPECIALISTS AND EXECUTIVES

Interview, Prof. Joachim Pfeil

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«The optimys stem has almost no limits in terms of its indication»

There was a little bit of luck involved, says Prof. Joachim Pfeil, one of the developers of the optimys short stem. Looking back he is pleased that his design, which is gentle on bones and soft tissue, has been used successfully for 10 years.

Professor Joachim Pfeil

is a consultant at the Department of Orthopaedics and Trauma Surgery of St Josef's Hospital in Wiesbaden. Together with his team, he replaces around 1 300 primary hip joints and around 600 primary knee joints each year along with shoulder and ankle joints. He completed his orthopaedic training at the university hospitals of Heidelberg and Mannheim. Prof. Pfeil is the author of numerous publications and books, including the textbook in the dual series «Orthopaedics and Traumatology». He is co-founder of the Association of Franco-German Orthopaedic Surgeons and Traumatologists (AFACOT).

Prof. Pfeil, what were the greatest clinical challenges that led you to develop a new short stem in collaboration with Prof. Siebert and Mathys?

Preoperative planning with straight stems repeatedly illustrated how impossible it was to accurately restore the pre-existing anatomy of the hip joint. Implants with straight stems traumatised soft tissues and caused trochanteric tears, and periprosthetic fractures were observed all too frequently. During revisions, revision stems were used – often with unsatisfactory results. Another factor ignored in the past was the axial alignment of a diaphyseal anchoring stem. In many cases, this led to a translation error, which for example also facilitates luxation.

«We exceeded the goals we had set ourselves.»

How were these clinical challenges addressed during the development process?

We based our implant development on the study of the anatomy of the proximal femur. Many X-ray images were superimposed and the «average» anatomy was determined. The anatomy of the Adam's arch was realized in technical terms by the engineer by means of three radii that merge into one another. Various designs were «implanted» virtually, with the anatomy being considered both from axial and proximal diaphyseal perspectives. Before the first metal was produced, the design was complete.

From today's perspective: were the goals you had set yourself during development achieved?

Luck plays a role in every innovation, even if it is based on facts, measurements, considerations and planning. We exceeded the goals we had set ourselves. Anatomical reconstruction with planning of the level of the femoral neck resection is possible for almost all joints. The rate of periprosthetic fractures and trochanteric injuries is significantly reduced compared to

straight stems. Due to the simpler surgical technique, the operation time is noticeably shorter and the operation itself is less stressful. Luxations are now only seen extremely rarely. A Harris Hip Score of 98 has been measured in several follow-up examinations – a value we never saw with straight stems.

«Other designs can only be used in selected anatomical situations.»

In your opinion, what are the advantages of the optimys stem compared to other short stem models?

One major advantage is that there are hardly any limitations for the optimys stem when un-

cemented primary prosthesis implantation is indicated. It is possible to anchor the optimys in the metaphyseal, the meta-diaphyseal, as well as the proximal diaphyseal region. Other

designs can only be used in selected anatomical situations. One advantage over the increasing number of «imitation implants» is without doubt safety, which has now been confirmed by registry data.

After 10 years of clinical use: from your point of view, are there any challenges or limitations in relation to the stem? If so, what are they, and what could be developed further or improved for you with the optimys stem?

Smaller sizes have already been developed for the Asian population. Oversize models, which are seldom needed, are still lacking, but are needed to cover the entire size spectrum. We also want to have a cemented version of this implant. The necessary preliminary examinations for this have already been completed. The extremely gentle implantation – far away from the muscle attachments – would be very advantageous for the patient, especially in the case of osteoporotic bones, which represent an indication for a cemented restoration. The other advantages of the design, such as the very strong possibility of reconstructing the anatomy of the joint, would also be a further advantage of the cemented version compared to the existing design.

What tips would you give to your colleagues who want to start using optimys? What in particular should they pay attention to?

You need to have understood the philosophy of the optimys system, which implies a certain learning curve. Subsequently, however, implantation is easier than the implantation of straight stems – and this is true with all access approaches. Preoperative planning is important as the location of the femoral neck osteotomy depends on it. Intraoperatively, a good rasp fit should be checked using an X-ray image intensifier. The most common mistake is to choose an implant that is too small, as this can lead to subsidance. This can be avoided with the right implant size.

«Pre-operative planning is important as the location of the femoral neck osteotomy depends on it.»

What distinguishes the system «bone preservation» (optimys – RM Pressfit vitamys – ceramys) for you?

Bone is protected even during primary implantation using these implants. The risk of periprosthetic fractures, trochanteric injuries and soft tissue damage is reduced significantly. Even though these high-quality implants have a long service life, the possibility of a revision should still be considered, especially in younger patients. This philosophy of «bone preservation» implantation makes it much more feasible to switch to another primary implant in the event of a revision.

«Many studies and register data show the very good performance of the optimys implant.»

Your statement on 10 years of optimys?

Many things are considered in a new development, but only its widespread use testifies to a development's quality. More than 100 000 implantations have been performed to date. Many studies and registry data show the very good performance of the optimys implant. What pleases me personally is the fact that neither the implant nor the instruments have had to be changed over time.

Professor Pfeil, thank you for talking to us today.

New online continuing education format: Mathys Online-Live Events 2021

These days, doctors need new ways of securing their continuing professional development and exchanging ideas. That's why Mathys European Orthopaedics has created a series of top-quality live online events.

Prof. Andreas Niemeier (Hamburg)

Prof. Philip Kasten (Tübingen)

«Challenges and Controversies in Shoulder Arthroplasty», our first-ever series of live online international continuing education events starts in 2021, will address exciting issues around the key challenges and controversies in shoulder endoprosthetics, such as periprosthetic infections, kinematics and biomechanics, and new technologies.

Together with our partner Winglet, we've developed four live and post-live online events on these topics. Interested doctors can take part in four quarterly sessions in the coming year to gain inspiration, add to their knowledge, obtain CME points and talk to experts and colleagues.

The scientific programme is conceived and moderated by Prof. Andreas Niemeier (Hamburg) and Prof. Philip Kasten (Tübingen).

Challenges and Controversies in Shoulder Arthroplasty

Overview sessions

How to register

Live event	Post live event	Title	Registration
23.03.2021 07:00–08:15 pm*	**06.04.2021** More details to follow / Save the date!	Session no 1 **Periprosthetic joint infection in shoulder arthroplasty**	**Registration link:** www.mathys233.winglet.live
29.06.2021 07:00–08:15 pm*	**06.07.2021** More details to follow / Save the date!	Session no 2 **Kinematics and biomechanics of shoulder arthroplasty**	**Registration link:** www.mathys296.winglet.live
28.09.2021 07:00–08:15 pm*	**05.10.2021** More details to follow / Save the date!	Session no 3 **Technology in shoulder arthroplasty: current developments**	**Registration link:** www.mathys289.winglet.live
30.11.2021 07:00–08:15 pm*	**07.12.2021** More details to follow / Save the date!	Session no 4 **Challenges and possible solutions in shoulder arthroplasty**	**Registration link:** www.mathys3011.winglet.live

* Time zone: Europe/Berlin Central European Time/Mitteleuropäische Zeit (CET/MEZ)

Take part from the comfort of home or on the move
The high-quality online live series is produced in a TV studio in hybrid format and beamed all over the world. Participants can log in easily from home or on the go to follow the live stream and put questions to the experts in real time.

As the pioneer of digital education in the medical field, Winglet offers high-quality TV-style training sessions, featuring an inspiring mix of topical live discussions, educational surgery videos, video statements by renowned international shoulder experts, and interactive live discussions with viewer polls and Q&A sessions.

All events in the live online series are eligible for CME credits. To obtain the credits and receive a personalised attendance certificate, participants must successfully complete the CME quiz.

We're looking forward to having you participate in our online events.

For further information, visit us at mathys.winglet.live

Please get in touch with Mrs Sybille Käser if you have any questions sybille.kaeser@mathysmedical.com / Telephone +41 32 644 1258

WINGLET
innovating medical education

Automatically keeping a distance

Social distancing is a special challenge in the day-to-day operation of a clinic or hospital. The Safe Spacer can help you to prevent people from unintentionally getting too close to their colleagues at work.

Worn on the wrist or a key ring, the Safe Spacer warns employees by means of a light signal, a warning tone or vibration if a previously determined social distance of, for example, two metres is breached. The device uses ultra-broadband technology which enables 10 times more accurate positioning compared to previous standards such as Bluetooth. Only if one gets too close to other people does the device collect data that can be used for contact tracing in the event of an infection. The device is waterproof and is easy to clean and sterilise. The Safe Spacer is produced by IK Multimedia in Modena, Italy, and is expected to be available in the third quarter of 2020 at a retail price starting from $ 99.99/EUR 85.00 (excluding VAT).

For more information about the Safe Spacer, see safespacer.net.

Time management: clearing out and systematically creating order

«Getting Things Done», or GTD for short, is a self-management method that helps you to keep your head clear and manage hospital stress in a structured manner. Recent studies prove how high the workload and intensity of work is in hospitals. [1]

Whether in the emergency admission unit or on a demanding shift, stress levels sometimes exceed the limits of what is bearable. In addition to day-to-day medical matters, managers are also facing other demands. It is therefore not surprising that the «Sixth European Working Conditions Survey» describes that, compared to other professions, healthcare workers are subject to the highest work intensity, the most frequent interruptions, high emotional demands and the highest exposure to social stress factors. [2]

The recommendation for effective self-management by David Allen, the inventor of the productivity method «Getting Things Done», has convinced executives in all sectors of the economy around the globe. His concept of «stress-free productivity» is also an effective tool in hospitals facing turbulent times.

Maximum results with minimum time and effort

«Getting Things Done» promises a working day that is more stress-free and efficient. This is because the GTD method helps to relieve the overcrowded working memory of our brains. Rather than pondering problems from our private lives or remembering the agenda of the team meeting, there is once again room for the essentials: the medical challenges, communication with employees and talking to patients.

David Allen's method confronts the flood of information in five steps: Collect, Process, Organise, Review and Complete. In the first, very decisive step, all plans, tasks and to-dos are collected. In GTD language, «Actions» and «Projects» are created, which become more and more manageable and can be arranged in time slots, delegated to employees or completed straight away. David Allen states: «*Go through the lists as many times as you need to get them out of your head.*» [3]

It's not a paradox: thinking about the work in detail saves time in the actual work process. At the same time, it allows you to clear your head, gain an overview and then take decisive and confident steps to cope with the work. As with all methods of self-management, we have to leave the ruins of old habits to build new rituals. By consistently integrating the GTD system into our daily work, we manage small stages every day, which together allow us to achieve big goals.

Creating an external memory

Science has also been looking into the success of Allen's GTD method. The Belgian social and cognitive psychologists Francis Heylighen and Clément Vidal explain that information overload is usually the cause of individual stress. According to the researchers, the human brain does not record the importance or unimportance of information, but instead a sheer volume of, for example, unfinished e-mail enquiries, callback requests or content from the latest training course. We support our brain by using external tools and outsourcing tasks. The routine of the five steps can bring more clarity, control and focus to your day-to-day work. This is because it follows our brain's natural processes, stress Heylighen and Vidal. [4]

Not managing time

Surgeons need phases of high concentration in operations lasting several hours, hospital managers need resilience in the tension between increasing cost pressure, political framework conditions and the hospital's competitiveness. A look at the unpredictable everyday life of an emergency admissions unit proves that schematic techniques help: doctors make emergency medical decisions based on a systematic process that can be completed in minutes within the limited resources of time, personnel and medical care. For example, this determines the

treatment sequence for patients using three traffic light colours, but also the next steps of treatment in major emergencies.

The systematic procedure of the GTD method extends the structured approach to all areas of work in everyday hospital life. With this mental tidying up, time management takes on a new dimension. Because we are no longer managing time, but rather ourselves.

The 5 principles of the GTD method with specific tips can be found in the checklist, which is available to download.

Sources

1 Coutinho H, Queiros, C, Henriques, A et al. Work-related determinants of psychosocial risk factors among employees in the hospital setting. Work, 2018; 61(4): 551–560.

2 Parent-Thirion, A, Biletta I, Cabrita, J et al. Sixth European Working Conditions Survey – Overview Report (2017 update), Publications Office of the European Union, Luxemburg; 2017.

3 Allen D. Getting Things Done. The Art of Stress-Free Productivity. New York: Penguin Books; 2001.

4 Heylighen F, Vidal C. Getting Things Done: The Science behind Stress-Free Productivity. Long Range Plan 2008; 41(6):585-605.

Download

You can download the checklist featuring «5 principles of the GTD method» here.

Further reading

David Allen
Getting Things Done: The Art of Stress-Free Productivity.
Penguin Books; Revised: 2015.

David Allen
The Getting Things Done Workbook: 10 Moves to Stress-Free Productivity.
Piatkus: 2019.

Patrick King
The Science of Getting Started: How to Beat Procrastination, Summon Productivity, and Stop Self-Sabotage.
Independently published: 2019.

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move! is published by Mathys Ltd Bettlach – your competent partner for total arthroplasty. With new, useful information, *move!* is addressed to specialists in orthopaedics and traumatology in hospitals and practices, as well as all specialist and management staff in the medical field, nursing staff and general management in hospitals. We would like to thank all of those who have helped us in realising the publication of *move!* by making individual contributions, or providing information and photographs.