

# Doing the right thing: AI & ethics

At Johnson & Johnson we aspire to use artificial intelligence (AI) in an ethical way, with Our Credo and our Code of Business Conduct as our inspiration and roadmap.

AI and machine learning play an increasingly important role in delivering excellence at Johnson & Johnson. AI is helping to drive socially beneficial innovations and new ways of helping those we serve live healthier lives. For instance, it is used in drug development, robotic-assisted surgery, commercial activities, chatbots and smart manufacturing in our supply chain.

Our ethical foundation for using AI—based on the principles of Fairness, Privacy, Security, Responsibility and Transparency—is embedded in how our employees work every day and is reflected in our [Position on Ethics and Compliance](#) and in a wide range of voluntary disclosures (see our [Position on Transparency](#) and our [Position on Data Privacy](#)).

It also rests firmly on [Our Credo](#), which challenges and inspires our employees to put the needs and well-being of those we serve first, and on our [Code of Business Conduct](#), which provides guidance regarding ensuring an open and honest work environment.

## Fairness in AI

We believe that for AI to be fair, it must treat Our Credo stakeholders—the patients, doctors and nurses, mothers and fathers, communities, employees and shareholders—in an equitable manner. We aim to include fair practices through each step of the AI lifecycle, from development to deployment.

We aspire to identify data sources that are diverse and appropriate for the use case and represent the intended audience as we move along the AI lifecycle. And we strive to understand the methods by which data sets are collected and how external influences, such as biases that exist in healthcare, may affect them.

Throughout this process, we seek to proactively identify any bias in the data, and we utilize the latest advancements in technology to improve the robustness of our models. By seeking to proactively understand the data sets used and by asking the right questions, we can work to correct bias when we identify it, mitigate its impact when correction is not reasonably possible, or discontinue an analysis when needed or appropriate.

To remain true to Our Credo, we look to have human experts involved throughout the AI lifecycle and controls in place to monitor model outputs. Our AI models are also intended to be “explainable,” so that how a model makes decisions is understood and we can identify when and why it may produce biased results. When it is not possible to fully explain how an AI model works, we seek to design and monitor the AI model proactively so we can overcome and minimize potential bias. When possible, we strive to capture performance metrics and check performance differences to determine their potential real-world impact on the patients and customers we serve.

We also acknowledge that the characteristics of data sets may change over time (called "drift"). This may require us to reexamine the data for new insights and evolve our models. Our attention to bias, transparency and security helps us monitor and understand the potential for drift and how to manage it.

By understanding the limitations of data, by training our models, and by facilitating human review, we strive to deliver AI-embedded solutions and products for the benefit of our patients and customers.

## **Respecting the right to privacy**

Respecting and protecting an individual’s right to privacy is at the core of how we do business. Although AI has driven significant breakthroughs in drug discovery, precision medicine, manufacturing and diagnostics, realizing its true potential requires careful governance and a steadfast adherence to privacy and data protection laws. The responsible use of data and the importance of privacy are embedded in our [Code of Business Conduct](#) and our [Position on Data Privacy](#).

The exponential growth of data, connectivity and computing power, coupled with an increased use of AI, requires an increasingly diligent approach to safeguarding privacy. To build and sustain the trust of the stakeholders who rely on us, it is essential that we not only comply with legal and regulatory requirements, but that we also ensure the following:

- We operate transparently;
- We store data in a secure environment with controlled access;
- Our employees are trained in Privacy and Information Security; and
- We only collect and use the personal information that is necessary and relevant for our purpose and ensure proper consents, notices and disclosures are secured or provided to individuals.

These commitments can be found in our public [Position on Data Privacy](#), and updates to this commitment are contained in our annual [Health for Humanity Report](#).

## **Securing AI**

Across Johnson & Johnson, we work diligently to safeguard our networks and systems against evolving cyber threats and to deter unintended or unauthorized access to business and personal information.

We secure elements of the AI lifecycle in accordance with relevant laws and regulations, and our employees use strategies, innovations and information assets in line with our policies and approved processes. Our commitment to protecting information assets and business integrity is spelled out in our [Position on Information Security](#).

## **Using AI responsibly**

Our commitment to Our Credo stakeholders guides our efforts to ensure that AI is inclusive and generates consistent and reliable benefits.

It is critical, for example, that healthcare professionals (HCPs) are free to make appropriate care recommendations in the best interest of their patients; AI should assist and not hinder this process. As an employer, we have a duty to our employees to make sure AI does not interfere with fostering an inclusive and safe working environment. And, as we look beyond our walls, we expect our external partners to follow high legal and ethical standards when collaborating with Johnson & Johnson in developing and deploying AI.

In using AI, we have an obligation to be good stewards of data sets and bring the appropriate level of scrutiny—both human and digital—to maximize the quality of outputs. We should be mindful of potential bias and gaps in our data. We should look to ensure the validity of our data sources, and we should follow appropriate collection and use practices.

We believe in clear accountability throughout the AI lifecycle, supported by robust [quality assurance](#) mechanisms, and we seek to deploy AI in a [safe and secure environment](#).

## Making AI transparent

Our Credo stakeholders are at the core of what we do and how we operate. That's why we do our utmost to be transparent. For example, in the [Janssen U.S. Transparency Report](#), we outline many of our transparency initiatives.

When leveraging AI tools, transparency is essential in building trust with HCPs, patients and customers in all areas of our business. Building upon our [established framework](#), such as Compliance, Operational, Finance and Cybersecurity, we seek to ensure there are adequate processes in place for data collection, management, curation and transformation, including how a model is built, used and monitored—all with the goal of making the unexplainable more explainable. Where the unknown creates confusion and suspicion, we believe appropriate transparency brings clarity and understanding of the AI tool's benefits and limitations.

## A final word

AI is a key component of the future of healthcare. The question is no longer *whether* AI will be used in the development, commercialization and delivery of future medicines and medical technologies, but *how* it will be used. The principles of fairness, privacy, security, responsibility and transparency guide our work with AI so that throughout the AI lifecycle, our employees operate with the highest levels of integrity required by Our Credo and our Code of Business Conduct. With these principles as our guide, we believe that AI will continue to play a central role in bringing life-saving medicines, technology and quality healthcare to patients and customers around the globe.