Regulating Enhancement: Should Singapore Open Public Access to Fitness Peptides?

In recent years, Singapore's health authorities have had a regulatory dilemma – one that did not fit neatly into pre-existing categories of therapeutic governance, as the most recent developments in the field of biomedical science had ushered in a fast-growing class of pharmacotherapy: peptide-based substances. Their use was neither wholly experimental nor universally accepted as routine pharmacological treatment, but the public interest in these substances quickly expanded due to global attention on weight-loss drugs, online fitness communities, and societal anxieties about ageing, metabolic health and body optimisation. The result? A convergence of clinical innovation, consumer demand and regulatory uncertainty that challenges age-old assumptions about the governance of health products.

This case study examines that dilemma. It explores whether Singapore should consider expanding public access to fitness-related peptides, and if so, under what conditions such access might be governed. Situating Singapore's experience within a comparative international context, the case invites readers to assess competing policy objectives involving public health protection, personal autonomy, equity, enforcement feasibility and biomedical innovation. Instead of recommending any particular policy, the case provides analytical and discursive support to put the reader in the position of policymakers confronting an increasingly urgent and unresolved regulatory choice.

Background

Peptides in Singapore

Peptides – versatile short chains of amino acids that function as signalling molecules in the human body[1] – were not new to Singapore's healthcare system. For a few years, clinical practice has employed peptide-based therapies, most commonly in the management of diabetes and other endocrine disorders. But another category of peptide-related products, popularly known online as "fitness peptides," had started arriving in the consumer market outside of conventional medical channels. Through social media platforms and online marketplaces, these products are marketed for a range of purposes, including weight loss, muscle recovery, injury healing and general "optimisation".[2] Though some of these peptide-based drugs were approved medicines marketed to patients under medical supervision, others were not approved or not supported by

[1] Dipanjan Karati, Shreyasi Meur, Soumi Das, Arpan Adak, and Swarupananda Mukherjee, "Peptide-Based Drugs in Immunotherapy: Current Advances and Future Prospects," *Medical Oncology* 42, no. 177 (2025), https://doi.org/10.1007/s12032-025-02739-9.
[2] Helmi Yusof, "Singapore Biohackers Turn to Science to Stay Younger, Live Longer," *The Business Times*, April 10, 2025, https://www.businesstimes.com.sg/lifestyle/travel-wellness/singapore-biohackers-turn-science-stay-younger-live-longer.

This case was written by Torance Tan, Arjun Jayaprakash and Joshua Lim from the National University of Singapore. *The case does not reflect the views of the organisation nor is it intended to suggest correct or incorrect handling of the situation depicted. The case is not intended to serve as a primary source of data and is meant solely for class discussion.*

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substantial clinical evidence. However, they were nonetheless accessible to consumers through informal or cross-border channels.

Singapore's regulatory institutions responded quickly. The Health Sciences Authority (HSA), which regulates the sale and use of therapeutic products in Singapore, intensified enforcement efforts against the unauthorised online sale of such health products by removing thousands of illegal listings and issuing warnings to vendors operating outside of approved supply chains. These measures indicated a growing concern that existing traditional regulatory mechanisms were being undermined by digital marketplaces, allowing health products to reach consumers without the safeguards typically associated with licensed medical practice. Moreover, combined with local media covering the illegal sale of prescription-only weight-loss medication, these peptides could not be overlooked in public discourse and consumer behaviour.

To complicate matters further, drugs based on peptides were appearing more widely in mainstream healthcare at the same time. Glucagon-like peptide-1 (GLP-1) receptor agonists, initially developed for the treatment of type 2 diabetes, had demonstrated significant effects on weight reduction and metabolic control. These drugs were already subject to clinical guidance and evaluation within Singapore's healthcare system, reflecting their recognised therapeutic value. Yet their rapid uptake and expanding patterns of use also raised questions about long-term safety monitoring, appropriate indications, and the extent to which pharmaceutical solutions should be integrated into broader strategies for managing lifestyle-related conditions. Regulatory authorities were therefore tasked not only with facilitating access to effective treatments, but also with monitoring emerging safety signals and managing public expectations.

Concurrently, the relationship of peptide with enhancement and performance raised specific challenges for governance. Peptide-related substances were also regulated by international anti-doping laws in elite sports as part of an effort at institutional protection of the integrity of those involved and a limitation of pharmacological enhancement. Outside of competitive sport, however, there was no similar global consensus. Fitness-based peptide application occupied an ambiguous space between personal autonomy, consumer empowerment and public health guardianship. This tension was heightened by the rhetoric of optimisation and self-fulfillment which positioned the use of peptides as an individual choice rather than a medical intervention and consequently complicated the application of regulatory logics.

By 2026, these intersecting pressures had increasingly drawn the attention of policymakers within the Ministry of Health (MOH) and HSA, raising questions about the adequacy of Singapore's existing regulatory posture toward fitness-related peptides. The challenge lay in deciding how to govern substances that were at once legitimate medicines, objects of consumer interest, and symbols of a broader cultural shift toward biomedical optimisation.

Fitness Peptides in Context: Definitions, Evidence and Regulatory Significance

The term "fitness peptides" has gained traction in public discourse precisely because it captures a heterogeneous set of substances whose regulatory status, evidence base and intended uses vary significantly. From a policy perspective, this heterogeneity is central to understanding why peptide governance poses such difficulty. Peptides are small amino acid chains capable of behaving as signalling molecules in the human body, modulating processes such as metabolism, hormone secretion, immune response and tissue repair. Their

biological specificity makes them appealing for therapeutic development, and peptide-based medicines have been used as part of clinical practice for decades. Yet the same characteristics that make peptides valuable in medicine also render them susceptible to repurposing, rebranding and diffusion beyond tightly controlled clinical settings.

Within Singapore's healthcare system, peptide-based medicines are most clearly represented by GLP-1 receptor agonists. These drugs were developed and approved for the treatment of type 2 diabetes, with extensive clinical trial data demonstrating their ability to improve glycaemic control.[3] Subsequent evidence showing significant weight-loss effects contributed to their rapid rise in prominence, both within and beyond clinical contexts.[4] In Singapore, GLP-1 receptor agonists are subject to prescription requirements and clinical guidance, reflecting their status as regulated therapeutic products. Their incorporation into mainstream healthcare illustrates the state's capacity to evaluate, approve and monitor peptide-based interventions when supported by robust evidence.

However, the expanding visibility of GLP-1 receptor agonists has also complicated regulatory narratives. As these drugs entered public consciousness as tools for weight loss and metabolic optimisation, their use began to intersect with broader debates about medicalisation and lifestyle intervention. While obesity is increasingly recognised as a chronic condition with significant health implications, the framing of pharmacological weight management as a fitness or optimisation strategy rather than a medical treatment raises questions about appropriate indications, demand management and long-term reliance on pharmaceutical solutions.[5] This transition poses a challenge for regulators in the clear delineation between therapeutic need and enhancement-oriented consumption; especially when the same substance can potentially perform both these functions.

In addition to approved medicines, a second category of peptide-related products has emerged that also has little regulatory clarity. Many peptide compounds are marketed to fitness and wellness communities as being conducive to faster healing, reduced inflammation or improved muscle health. Many of these substances are sold online directly to consumers, often with labels explaining that they are meant for research or lab use – not for human consumption. These compounds typically lack large-scale controlled human trials and have not undergone formal evaluation by regulatory authorities in Singapore or other major jurisdictions. Their popularity instead rests upon anecdotes, first reports and influencer-driven accounts that straddle the line between experimental science and consumer marketing.

From a governance standpoint, the circulation of such products raises distinct concerns.[6] Without formal

[3] Logan Collins and Ryan A. Costello, "Glucagon-Like Peptide-1 Receptor Agonists," [Updated February 29, 2024]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; January 2025. https://www.ncbi.nlm.nih.gov/books/NBK551568/.

[4] Areesha Moiza, Kristian B. Filion, Michael A. Tsoukas, Oriana H.Y. Yu, Tricia M. Peters, Mark J. Eisenberg, "The Expanding Role of GLP-1 Receptor Agonists: A Narrative Review of Current Evidence and Future Directions," *eClinicalMedicine* 86 (August 2025): 103363. https://doi.org/10.1016/j.eclinm.2025.103363.

[5] Center for Drug Evaluation and Research, "FDA's Concerns With Unapproved GLP-1 Drugs Used for Weight Loss," U.S. Food and Drug Administration, https://www.fda.gov/drugs/postmarket-drug-safety-information-patients-and-providers/fdas-concerns-unapproved-glp-1-drugs-used-weight-loss.

[6] Written Answer to Parliamentary Question on "Cases of Unauthorised Sale of Drugs for Treatment of Diabetes and Obesity," Ministry of Health Singapore, September 10, 2024, https://www.moh.gov.sg/newsroom/cases-of-unauthorised-sale-of-drugs-for-treatment-of-diabetes-and-obesity/.

approval, regulators lack reliable data on manufacturing quality, dosage, purity and long-term safety. Moreover, the informal channels through which these compounds are distributed – often spanning multiple jurisdictions – complicate enforcement and oversight. While some consumers may view these products as low-risk supplements or personal optimisation tools, regulatory institutions must assess them through the lens of population-level risk, misinformation and potential harm. The absence of a clear evidentiary foundation makes it difficult to calibrate proportionate regulatory responses, particularly when demand continues to grow.

The instability of the category "fitness peptides" thus lies in its capacity to collapse fundamentally different regulatory realities into a single term. Approved medicines such as GLP-1 receptor agonists operate within established systems of clinical evaluation, prescription control and post-market surveillance. In contrast, unapproved peptide compounds circulate in spaces that are only partially visible to regulators and often framed as consumer goods rather than therapeutic products. Treating these substances as a unified class risks either imposing overly restrictive controls on legitimate medical practice or underestimating the risks posed by poorly evidenced products marketed for enhancement.

In Singapore, that instability is compounded by the country's regulatory architecture. HSA has the discretion/control over therapeutic products for human use, and MOH manages health policy and system stewardship. Taken together, these institutions have strong evidence for measuring safety, efficacy and quality in traditional drug lines. But the emerging digital-mediated markets and fitness-oriented patterns of consumption are creating pressure on models built around licensed manufacturers, prescribers and in-store access. As peptide-related products circulate through social media platforms and cross-border e-commerce, the distinction between regulated medicines and unregulated consumer goods becomes harder to sustain in practice.

Therefore, the policy relevance of fitness peptides is not only of biological value but also because of the disjunction between prevailing regulatory theories and current forms of consumption. Peptides challenge regulators to confront questions about evidence thresholds, enforcement feasibility and the scope of state intervention in enhancement-oriented markets. They also force reconsideration of how medical authority is constructed and maintained when scientific knowledge, consumer demand and commercial incentives evolve at different speeds. Understanding these dynamics is essential for evaluating the policy options available to Singapore as it considers how, and whether, to adapt its approach to governing fitness-related peptides.

Comparative Regulatory Experiences: Medicalisation, Restriction, and Grey Markets

Singapore's emerging dilemma over fitness-related peptides is not unique. Other countries have long grappled with similar tensions between public health protection, consumer demand and biomedical innovation although within different institutional and cultural contexts. Comparative regulatory experiences are therefore instructive, not because they offer ready-made solutions, rather because they illuminate how particular governance choices shaped market behaviour as well as their respective enforcement challenges and social outcomes. In the case of peptides, three broad patterns can be observed internationally: (1) medicalisation through clinical channels, (2) precautionary restriction through professional gatekeeping, and (3) the persistence of informal or grey markets alongside formal regulation.

United States

The United States (US) exemplifies a regulatory environment characterised by partial medicalisation and market expansion. Peptide-based medications such as GLP-1 receptor agonists are approved through a centralised federal process, however their use is shaped by a fragmented healthcare system where prescribing practices are largely determined at the micro physician level. This has allowed approved peptide-based drugs to rapidly diffuse beyond their original indications, particularly through private clinics specialising in weight management, wellness and anti-ageing services.[7] Supporters argue that this model reflects responsiveness to patient demand and clinical discretion, thereby enabling innovation to reach consumers more quickly than in more restrictive systems.

At the same time, the US experience illustrates the limits of medicalisation as a regulatory strategy. Alongside legitimate prescribing, a substantial grey market has emerged for unapproved peptide compounds, often sold online under disclaimers such as "for research use only."[8] Although federal regulators have issued warning letters to vendors marketing such products for human use, citing concerns about safety, misbranding and consumer deception, enforcement has struggled to keep pace with the scale and adaptability of online sales.[9] Resultingly, medicalisation has not eliminated informal markets; instead, it has coexisted with them, creating a layered regulatory environment in which approved medicines, off-label use and unapproved compounds circulate simultaneously. For policymarkers, this raises questions about whether expanded access through clinical channels necessarily reduces harm, or whether it can inadvertently normalise enhancement-oriented consumption.

Other Western Countries

Conversely, Australia and many European countries have adopted more precautionary approaches to peptide governance. Regulatory authorities in these jurisdictions tend to classify peptide compounds conservatively, limiting access to approved therapeutic uses as well as restricting advertising and direct-to-consumer promotion.[10] Australia, for example, has seen regulatory action taken against clinics and suppliers offering unapproved peptide therapies, reflecting a preference for professional gatekeeping and population-level risk management. Similarly, European regulatory regimes often exclude enhancement-oriented peptide therapies from publicly funded healthcare systems and impose strict oversight on their commercial distribution. These precautionary models prioritise safety and the integrity of evidence-based medicine, but they are not

[7] Ariel Bogle and Donna Lu, "The Online Wellness Clinics Letting Customers 'add to Cart' Experimental Peptides without a Doctor Consult," *The Guardian*, December 11, 2025, https://www.theguardian.com/australia-news/2025/dec/11/the-online-wellness-clinics-letting-customers-add-to-cart-experimental-peptides-without-a-doctor-consult.

[8] Sriparna Roy, "US FDA Warns Online Vendors Selling Unapproved Weight-Loss Drugs," *Reuters*, December 17, 2024, https://www.reuters.com/business/healthcare-pharmaceuticals/us-fda-warns-online-vendors-selling-unapproved-weight-loss-drugs-2024-12-17/.
Johnathon Anderson, "Why Peptide Companies Stopped Selling Glp-1s Peptides (2026 Update)," Peptide Systems, January 6, 2026, https://www.peptidesystems.com/post/why-peptide-companies-stopped-selling-glp-1s?

[9] Brandon S. Zarsky, Eric P. Knowles, and Antony B. Kamel, "States Intensify Enforcement against 'Grey Market' Peptide Use in Medical and Wellness Spas," Frier Levitt – Attorneys at Law, August 11, 2025, https://www.frierlevitt.com/articles/states-intensify-enforcement-against-grey-market-peptide-use-in-medical-and-wellness-spas/.

[10] "Advertising Basics," Therapeutic Goods Administration, Department of Health, Disability and Ageing, Australian Government, March 11, 2025, https://www.tga.gov.au/products/regulations-all-products/advertising/advertising-basics.

without trade-offs. Critics argue that stringent controls can drive demand underground, pushing consumers toward informal markets where quality assurance and medical oversight are absent. Moreover, restrictive regimes may struggle to adapt to rapidly evolving scientific knowledge, particularly when preliminary evidence generates public interest before regulatory evaluations are complete. In this sense, precautionary governance may preserve formal boundaries while failing to engage fully with the realities of consumer behaviour and digital commerce.

Across both permissive and restrictive systems, informal markets remain a persistent feature of peptide use. Online platforms, cross-border shipping and social media marketing enable products to circulate beyond the reach of national regulators, regardless of formal policy stance.[11] This suggests that regulatory choices influence the shape of markets rather than their existence. Liberal access may integrate some demand into regulated channels while leaving residual grey markets, whereas strict prohibition may intensify reliance on informal networks. For Singapore, which possesses strong enforcement capacity but operates within a globalised digital economy, this dynamic complicates assumptions about regulatory effectiveness.

Comparative experience also underscores the importance of institutional context. Jurisdictions with fragmented healthcare systems and strong norms of consumer choice may tolerate higher levels of enhancement-oriented use, while those with more centralised health governance may prioritise precautions and uniform standards. Cultural attitudes toward self-optimisation, fairness and medical authority shape how peptide use is perceived and regulated. In sport, international anti-doping regimes reflect a shared commitment to limiting pharmacological enhancement, yet these norms do not translate neatly into consumer fitness markets, where no equivalent global consensus exists.

For Singapore, these comparisons highlight both opportunities and constraints. The city-state's strong regulatory institutions and high levels of public trust provide tools for proactive governance, including coordinated enforcement and clear public communication. At the same time, Singapore's aspirations as a biomedical hub and its emphasis on preventive health create pressure to remain open to innovation and evidence-informed adaptation. Comparative cases therefore frame, rather than resolve, the central question confronting Singapore: how to design a regulatory approach that manages risk and uncertainty without either ceding control to informal markets or foreclosing the potential benefits of emerging biomedical technologies.

Policy Options for Governing Fitness Peptides in Singapore

In view of the widespread use and increasing development of fitness-related peptides, Singapore's policymakers now must confront several crucial decisions as to how such substances should be regulated. These are not mutually exclusive choices, nor can they be boiled down to a simple binary of permissiveness versus prohibition. Instead, these choices reflect different priorities for Singapore: protecting public health, respect for individual autonomy, the need for innovation, as well as regulatory capacity. The following policy options discussed will elaborate on the distinct governance approaches that could be adopted, each with its own trade-offs and implications.

[11] Mark Tarre, "Unapproved Peptide Ads Surge across Online Platforms," *IT Brief Asia*, January 10, 2026, https://itbrief.asia/story/unapproved-peptide-ads-surge-across-online-platforms.

Option 1: Preserving Precaution through Restricted Access

The first possible option is to continue with the current regulatory framework under which only approved peptide-based medicines will be available for definite medical indications, while non-approved peptide compounds will be prohibited from commercial sale and distribution. Such an approach is in line with Singapore's established precautionary orientation towards public health governance.[12] Limiting access to substances whose safety profiles are incomplete or disputed would likely reduce population-level risk and preserve confidence in evidence-based medicine. In doing so, clear professional boundaries are drawn, which strengthen the role of licensed medical practitioners as overseers and distributors, ensuring that therapeutic interventions using therapeutic peptides are subject to clinical judgment.

However, maintaining the status quo has some limitations. The increasing demand for these fitness-related peptides suggests that restrictive regulation alone may be insufficient to suppress use and could potentially displace its sales into informal markets. If consumers are unable to access peptide-based products through regulated channels, they may turn to online or overseas suppliers, where product quality and safety cannot be guaranteed. In that way, a solely restrictive approach risks eroding the credibility of the regulations themselves by inadvertently allowing a gap to persist between laws and lived practice. Additionally, limiting the opportunities for controlled access may reduce policymakers' ability to generate real-world evidence that could inform future policy adjustments, which may be detrimental in the long term in the face of evolving consumer behaviour and emerging scientific knowledge.

Hence, a restrictive approach would minimise immediate risk, maintaining use of therapeutic peptides in an appropriate and regulated manner. However, this could potentially drive consumers to unregulated sources, as well as limit opportunities for evidence-based refinement of policies, leaving policymakers reactive rather than adaptive.

Option 2: Controlled Medical Access and Supervised Use

The next option is to expand access of therapeutic peptides through regulated medical channels, permitting a select range to be prescribed under strictly regulated conditions even when their use extends beyond traditional disease therapy. Access would be managed by licensed healthcare practitioners acting in accordance with clearly defined guidelines. Before prescription of these peptides, patients would have to meet specific eligibility criteria and informed consent requirements, as well as agree to undergo continuous monitoring, with adverse events systematically reported to regulatory authorities. This is an approach of harm reduction: recognising demand while attempting to mediate risk via professional oversight.

There are various potential benefits to regulated access. If peptide use were to be integrated into healthcare settings, regulation of product quality, ensuring proper dosage and practices, and provision of patient education would all be made possible. Furthermore, it creates opportunities for systematic data collection, allowing policymakers to better understand patterns of use and evaluate long-term outcomes of patients. This

[12] "HSA Removes Over 4,600 Online Listings and Seized More Than 60,000 Units of Illegal Health Products in Week of Intensified Surveillance," Health Sciences Authority, October 31, 2023, https://www.hsa.gov.sg/announcements/press-release/hsa-opspangea2023.

model may therefore enable Singapore to gain additional insights and further its ambitions as a biomedical hub and a regulated environment that promotes clinical research and evidence generation.

On the other hand, extending medical access to these therapeutic peptides can further medicalise enhancement-oriented practices, placing pressures on Singapore's healthcare systems by diverting time and resources towards non-disease interventions. This would likely add to the administrative burden of monitoring and follow up, potentially straining specialist services, should demand increase beyond necessary use. It may also encourage access through private healthcare, driving inequities in healthcare which further potentiates disparities in income and social capital, a possibility evident in Denmark.[13]

Allowing regulated access to peptides offers a balanced harm-reduction pathway that maintains oversight while accommodating increasing demand. It would strengthen quality control, as well as enable data collection which supports biomedical innovation. However, it also risks increasing the healthcare system's administrative load, shifting medical attention towards non-therapeutic enhancement, and worsening inequities if access concentrates within the private sector.

Option 3: Limited Liberalisation with Regulatory Safeguards

The third possible option is to allow limited liberalisation, but accompanied by regulatory safeguards, where specific peptide products considered to be lower risk are made more accessible to the public. That could mean over-the-counter access to certain peptides, albeit subject to stringent regulations such as quality standards, labelling requirements, dosage limits and age restrictions. Public education campaigns would be a mainstay in such a policy, playing a crucial role in informing consumers about potential risks and discouraging misuse. Instead of relying on prohibition, this approach seeks to minimise harm by moving existing demand into a regulated and transparent market.

This focus on limited liberalisation is attractive for its emphasis on individual autonomy and consumer protection. By reducing consumer reliance on informal markets, the state could improve oversight of product quality and reduce exposure to unregulated, potentially dangerous substances. This approach also acknowledges the difficulty of enforcing strict bans in a digital economy, focusing on risk mitigation rather than absolute control of peptide therapeutics.

However, some critics argue that liberalisation is likely to normalise enhancement-oriented consumption and undermine social norms around precaution.[14] Even with safeguards in place, increased availability could lead to overuse and misuse, and consequently the gradual erosion of boundaries between therapeutic and

[13] Rasmus Bo Hasselbalch, Mille Kyhn Andrea, Carl Villaro Nolsøe, Mathias Hindborg, Puriya Daniel Yazdanfard, Kathrine Kold Sørensen, Stig Nikolaj Blomberg, et al., "Association between Socioeconomic Factors and Semaglutide Use for Weight Loss: A Population-Based Cross-Sectional Study in Denmark," *The Lancet Regional Health – Europe* 56, (September 2025): 101398, https://doi.org/10.1016/j.lanepe.2025.101398.

[14] Tina Tomažič and Anita Kovačič Čelofiga, "Ethical Aspects of the Abuse of Pharmaceutical Enhancements by Healthy People in the Context of Improving Cognitive Functions." *Philosophy, Ethics, and Humanities in Medicine* 14, no. 1 (2019), https://doi.org/10.1186/s13010-019-0076-5.

enhancement purposes.[15] Hence, it would be a challenge for policymakers to build safeguards that are robust enough to mitigate risk without being overly administratively onerous or too easily circumvented.

Option 4: Strong Prohibition and Enhanced Enforcement

The final and most restrictive option is strong prohibition coupled with enhanced enforcement. With such a policy, the state would intensify efforts to suppress both the demand and the supply of fitness peptides outside of approved medical uses. This approach would entail the reclassification of some of these peptide compounds under strict regulatory categories, increasing penalties for unauthorised sale or possession, as well as dedicating more resources towards monitoring online platforms and cross-border imports. Public messaging campaigns would play a crucial role again, though the emphasis would instead be on the potential harms of misuse, and to reinforce the legitimacy of regulatory boundaries.

Strong prohibition offers clarity, presenting to the public the state's commitment to public health protection, and drawing clear, firm boundaries around acceptable forms of biomedical intervention. In a society accustomed to clear rules and strong enforcement, such an approach may deter casual experimentation and limit the visibility of peptide use. Nevertheless, experience with other regulated substances suggests that strong prohibition involves significant risks. The markets for peptides may move further underground, reducing opportunities for regulatory bodies to guarantee quality control and harm-reduction interventions. Similar to Option 1, strict prohibition may limit immediate access, but persistent consumers may turn to unregulated online suppliers or overseas sources where safety standards cannot be enforced, as seen in Singapore's regulation of vapes.[16] Additionally, such enforcement-dependent strategies will require sustained investment and may raise questions about proportionality,[17] particularly if peptide use continues to be framed by consumers as a matter of personal choice rather than public harm.[18]

Each policy option reflects different assumptions on risk, responsibility, and the role of Singapore's policymakers in the regulation of fitness peptides. These options offer comprehensive solutions, and yet each entails trade-offs that extend beyond immediate regulatory outcomes. For Singapore's policymakers, the challenge lies not in selecting a theoretically optimal model, but in determining which approach best aligns with the country's institutional capacities, social values and long-term public health objectives.

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[15] Henry Greely, Barbara Sahakian, John Harris, Ronald C. Kessler, Michael Gazzaniga, Philip Campbell, and Martha J. Farah, "Towards Responsible Use of Cognitive-Enhancing Drugs by the Healthy," *Nature* 456, no. 7223 (2008): 702–5, https://doi.org/10.1038/456702a.

[16] Health Sciences Authority, "Continued Efforts to Crackdown on E-Vaporisers Offences," Ministry of Health Newsroom, May 16, 2025, https://www.moh.gov.sg/newsroom/continued-efforts-to-crackdown-on-e-vaporisers-offences-/.

[17] Health Sciences Authority, "MOH and HSA Continue to Intensify Enforcement On E-Vaporiser Offences," Ministry of Health Newsroom, August 26, 2025, https://www.moh.gov.sg/newsroom/moh-and-hsa-continue-to-intensify-enforcement-on-e-vaporiser-offences/.

[18] Grace Ping Ping Tan, Xian Zhen Tan, and Yvette van der Eijk, "'If I Could Try It, I'd Try It': Qualitative Study of the Illegal Vaping Culture in Singapore," *Addictive Behaviors Reports* 20 (December 2024): 100556, https://doi.org/10.1016/j.abrep.2024.100556.

Decision Point: Governing Enhancement in a Biomedical Society

Singapore's policymakers can no longer just treat rising demand for fitness-related peptides as a transient phenomenon. Enforcement actions against illegal online sales, the public's increased awareness of peptide-based weight-loss drugs and growing global discourse around enhancement and optimisation have combined, to expose the limitations of existing regulatory policies. What was once a niche issue at the intersection of medicine and fitness has become a broader governance challenge implicating public health, consumer behaviour, innovation policy and social norms.

The challenge facing Singapore is not only in classifying peptides as medicines or consumer products; it is also to decide how it, as a highly capable regulatory state, should handle pharmacological developments that have begun to blur distinctions between treatment and enhancement. Maintaining a restrictive framework preserves clarity and precaution, yet risks widening the gap between formal regulation and lived practice as consumers continue to access peptide products through informal channels. Expanding controlled medical access of peptides offers a greater likelihood of oversight and evidence generation, but raises some concerns about medicalising enhancement and exacerbating inequalities. Limited liberalisation may align regulatory frameworks more closely with consumer behaviour, yet challenges prevailing norms around risk, responsibility, and the appropriate reach of the state. Lastly, strong prohibition reinforces the setting of boundaries but may prove difficult to sustain, particularly in this digital economy characterised by cross-border commerce and rapidly shifting demand.

Moreover, it is important to also consider Singapore's broader policy objectives. Its heavy investment in innovation, clinical research and pharmaceutical development contribute towards its global status as a hub for biomedical and life sciences. Meanwhile, Singapore's health governance model embodies population-level risk management, trust in regulatory institutions, and social cohesion. Decisions on access to peptides show the conflict between how open Singapore should be to innovation and its traditional precautionary instincts, and therefore, policymakers will have to consider how to manage the social consequences of emerging biomedical technologies.

Currently, none of these current tensions is likely to be sufficiently resolved by an existing regulatory framework employed by other jurisdictions. Countries that have pushed for medicalisation are unable to cope with persistent grey markets, while those favouring strict control struggle with enforcement and public legitimacy. These are examples of the extent to which institutional capacity and cultural context significantly impact regulatory outcomes. Thus, for Singapore, which has strong administrative capabilities and a unique social contract, it should indubitably not be a question of which foreign models should be emulated, but rather how policymakers should adapt different aspects of these foreign approaches to the local context.

The challenge for policymakers thus is not whether a complete ban or an uncritical acceptance of peptide use is possible, but rather how it should be governed in a way that reflects Singapore's priorities and values. Should policies focus more on precaution and setting boundaries, even at the risk of informal market growth? Should they prioritise harm reduction and restricted access, accepting a degree of medicalisation and perhaps inequality? Or should they seek a more permissive framework that closely aligns regulation with consumer behaviour?

As local interest in fitness-related peptides expands, the decisions made by policymakers will define not just regulatory outcomes, but also the overall attitude towards health and human optimisation in Singapore.

Discussion Questions

1. What substances are being grouped under “fitness peptides,” and why does that categorisation create governance problems?
2. How should Singapore distinguish “treatment” from “enhancement” when the same substance can plausibly serve both?
3. What level of evidence should be required before expanding access, and what should regulators do when evidence is partial but demand is high?
4. What are realistic enforcement levers in a social-media and cross-border e-commerce environment, and what are the limits?
5. How might different access models affect inequality, social pressure to “optimise,” and Singapore’s meritocratic norms?
6. Which option (or hybrid) should MOH/HSA adopt, and what would an implementable policy package look like?